MZ-R910

SERVICE MANUAL

Ver 1.0 2002.06

Hong Kong Model Tourist Model



US and foreign patents licensed from Dolby Laboratories.

Model Name Using Similar Mechanism	NEW
Mechanism Type	MT-MZR910-180
Optical Pick-up Name	LCX-5RV

SPECIFICATIONS

Audio playing system

MiniDisc digital audio system

Laser diode properties

Material:GaAlAs

 $Wevelength: \lambda = 790nm \\ Emissin duration: continuous \\ Laser output: less than 44.6 ~\mu W$

(This output is the value measured at a distance of 200 mm from the lens surface on the optial pick-up block with 7 mm aperture.)

Recording and playback time (when using MDW-80)

Maximum 160 min. in monaural Maximum 320 min. in stereo

Revolutions

382 rpm to 2,700 rpm (CLV)

Error correction

ACIRC (Advanced Cross Interleave Reed Solomon Code)

Sampling frequency

44.1 kHz

Sampling rate converter

Input : 32 kHz/44.1 kHz/48 kHz

Coding

ATRAC (Adaptive TRansform Acoustic Coding)

ATRAC3 - LP2/LP4

Modulation system

EFM (Eight to Fourteer Modulation)

Frequency response

20 to 20,000 Hz ± 3 dB

Wow and Flutter

Below measurable limit

Inputs 1)

MIC : sterto mini-jack

(minimum input level 0.25 mV)

Line in

stereo mini-jack for anolog input (minimum input level 49 mV)

optical (digital) mini-jack for optical (digital) input

Outputs

 Ω /LINE OUT $^{2)}$: stereo mini-jack (dedicated remote control jack) /

194 mv(10 kohm)

Maximum output(DC) 2)

Headphones: 5 mW + 5 mW (16 ohm)

Power requirements

Sony AC Power Adaptor connected at the DC IN 3V jack (country

model in parentheses):

230 - 240 V AC, 50 Hz (Hong Kong)

100 - 240 V AC, 50/60 Hz (Tourist)

The recorder:

Nickel metal hydride rechargeable battery

NH-14WM(A) 1.2V 1350 mAh (MIN) Ni-MH

LR6 (SG) alkaline battery

Battery charging stand: AC power adaptor DC 3V

Dimensions

Approx.78.9 x 72.0 x17.1 mm (w/h/d)

 $(3^{1/8} \times 2^{7/8} \times 1^{11/16} \text{ in.})$

Continued on next page –

PORTABLE MINIDISC RECORDER

9-874-055-01 Sony Corporation
2002F0200-1 Personal Audio Company

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SONY®

Mass

Approx. 108g (3.8 oz) the recorder only

- ¹⁾ The LINE IN (OPT) jack is used to connect either a digital (optical) cable or a line (analog) cable.
- ²⁾ The \(\int \)/LINE OUT jack connects either headphones/earphones or a line cable.

Design and specifications are subjext to change without notice.

Battery life When recording

(Unit: approxi.hours)(JEITA¹⁾)

Batteries	SP Stereo	LP2 Stereo	LP4 Stereo
Nickel metal hydride rechargeable battery ²⁾	12	17	21
LR6 (SG) Sony alkaline dry battery ³⁾	12	19	23
Nickel metal hydride rechargeable battery + One LR6 (SG)	30	43	52

- ¹⁾ Measured in accordance with the JEITA (Japan Electronics and Information Technology Industries Association) standard.
- 2) When using a 100% fully charged nickel metal hydride rechargeable battery (NH-14WM(A)).
- 3) When using a Sony LR6 (SG)"STAMINA" alka line dry battery (produced in Japan).

When playing

(Unit: approxi.hours)(JEITA1))

Batteries	SP Stereo	LP2 Stereo	LP4 Stere o
Nickel metal hydride rechargeable battery ²⁾	30	38	42
LR6 (SG) Sony alkaline dry battery ³⁾	44	52	62
Nickel metal hydride rechargeable battery ²⁾ + One LR6 (SG) ³⁾	79	95	110

- Measured in accordance woth the JEITA (Japan Electronics and Information Technology Industries Association) standard.
- ²⁾ When using a 100% fully charged nickel metal hydride rechargeable battery (NH-14WM(A)).
- ³⁾ When using a Sony LR6 (SG) "STAMINA" alkaline dry battery (produced in Japan)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- · Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the leadfree mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40 $^{\circ}\mathrm{C}$ higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350 $^{\circ}\text{C}$.

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

· Strong viscosity

Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

· Usable with ordinary solder

It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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SECTION 1 SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

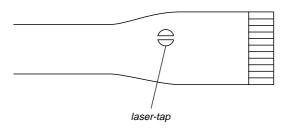
The flexible board is easily damaged and should be handled with

NOTES ON LASER DIODE EMISSION CHECK

Never look into the laser diode emission from right above when checking it for adjustment. It is feared that you will lose your sight.

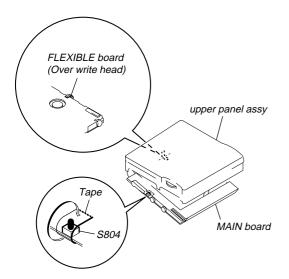
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK (LCX-5RV)

The laser diode in the optical pick-up block may suffer electrostatic break-down easily. When handling it, perform soldering bridge to the laser-tap on the flexible board. Also perform measures against electrostatic break-down sufficiently before the operation. The flexible board is easily damaged and should be handled with care.



OPTICAL PICK-UP FLEXIBLE BOARD

- In performing the repair with the power supplied to the set, removing the MAIN board causes the set to be disabled.
 In such a case, fix a convex part of the open/close detect switch (S804 on MAIN board) with a tape in advance.
 - Handle the FLEXIBLE board (over write head) with care, as it has been soldered directly to the MAIN board.
 - In repairing the component side of MAIN board, connect the FLEXIBLE board (over write head) and the MAIN board with the lead wires in advance. (See page 8)



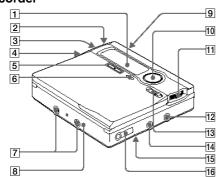
- The shipment data will be cleared when the NV is reset. Therefore, change the NV adjusted values following the Change of NV Adjusted Values immediately after the NV was reset. (See page 19)
- This set requires the patch data in the nonvolatile memory (IC802) to be rewritten using the application, when the MAIN board or nonvolatile memory (IC802) was replaced. (See page 26)
- Replacement of CXD2677-204GA (IC801) uesd in this set requires a special tool.

SECTION 2 GENERAL

This section is extracted from instruction manual.

Looking at controls

The recorder



- 1 Display window
- 2 T MARK button
- 3 Battery compartment 4 END SERCH button
- 5 VOLUME + */- buttons * The VOLUME + button has a tactile dot.
- 6 Terminals for attaching dry battery case
- 7 DC IN 3V jack
 8 GROUP / CANCEL buttons
- 9 OPEN buttons
- 10 5-way control key
 - For basic operations
 Press ▶ * to play / enter.

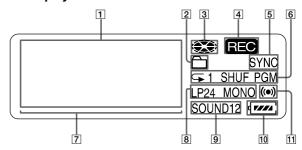
 - * the buttons has a tactile dot. Press ► to rewind / fast forward.

Press II to pause.

Press CHG ■ to stop / charge.

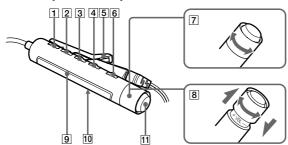
- · For moving the cursor and entering selected items (during text entry and other settings).
- 11 Jog dial (MENU / ENTER) Press to enter the menu, turn to select, and then press to enter.
- 12 LINE IN (OPT) jack
- 13 MIC (PLUG IN POWER)* jack * There is a tactile dot beside the MIC (PLUG IN POWER) jack
- 14 REC (record) switch
- 15 Hold switch (at the rear)
- 16 \(\cappa / \text{LINE OUT jack}\)

The display window of the recorder



- 1 Character information display Displays the disc and track names, date, error messages, track numbers, etc.
- 2 Group intication
- 3 Disc intication Shows that the disc is rotating for recording, playing or editing an MD.
- 4 REC intication Lights up while recording. When flashing, the recorder is in record standby mode.
- [5] SYNC (synchro-recording) intication
- 6 Play mode intication Shows the play mode (shuffle play, program play, repeat play, etc.) of the MD
- 7 Level meter
- 8 LP2 (LP2 stereo), LP4 (LP4 stereo), MONO (LP4 stereo)
- 9 Sound intication Lights up when Digital Sound Preset is on.
- 10 Battery intication
 - Shows approximate battery condition.
- 11 Melody timer intication

The headphones/earphones with a remote control



- 1 DISPLAY button
- 3 RPT/ENT (repeat/enter) button
- 4 SOUND button
- 5 Clip
- **6 ■ ■** (pause) button
- 7 Control (44/>)

▶►► : play, AMS, FF **I** : REW

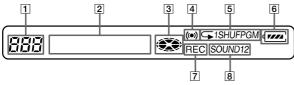
Turn or turn and hold to play, fast forward or rewind.

- rewind without listening to the play back sound.
- 8 Control (VOLUME +/-) Pull and turn to adjust the volume.
- 9 Display window
- May be used as the Enter button, depending on the function.

You can quickly fast forward or 2 PLAY MODE button

- 10 HOLD switch
- 11 (stop) button

The display window of the remote control

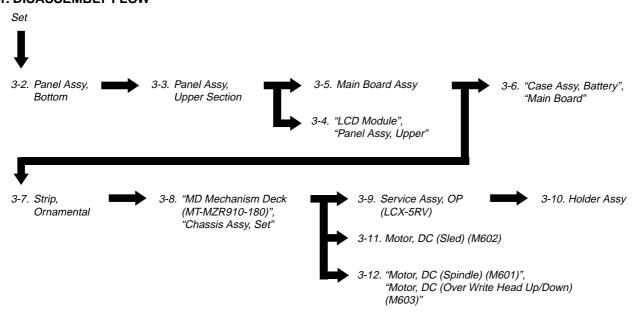


- 1 Trak number display
- 2 Character information display
- 3 Disc indication
- 4 Melody timer indication
- 5 Play mode indication 6 Battery leavl indication
- 7 REC indication
- 8 SOUND indication

SECTION 3 DISASSEMBLY

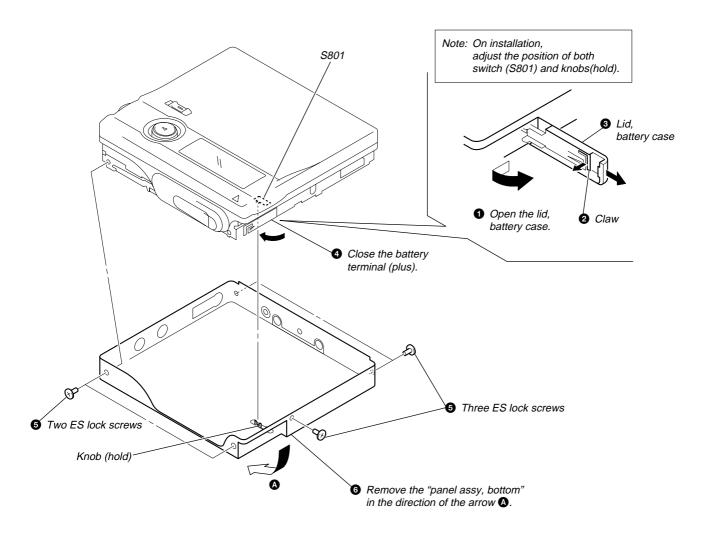
Note: Disassemble the unit in the order as shown below.

3-1. DISASSEMBLY FLOW

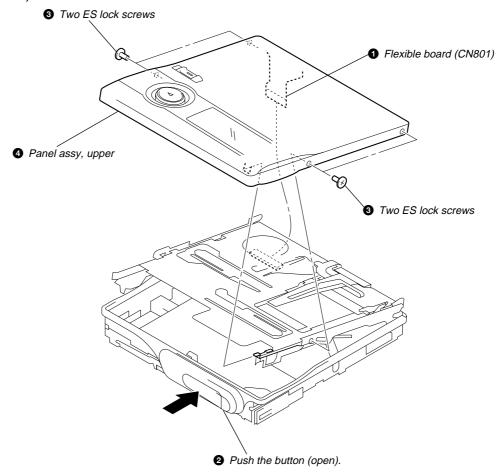


Note: Follow the disassembly procedure in the numerical order given.

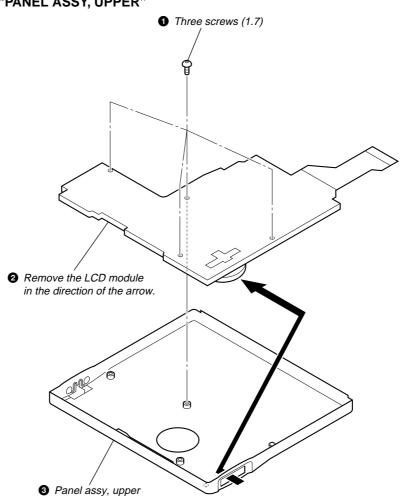
3-2. PANEL ASSY, BOTTOM



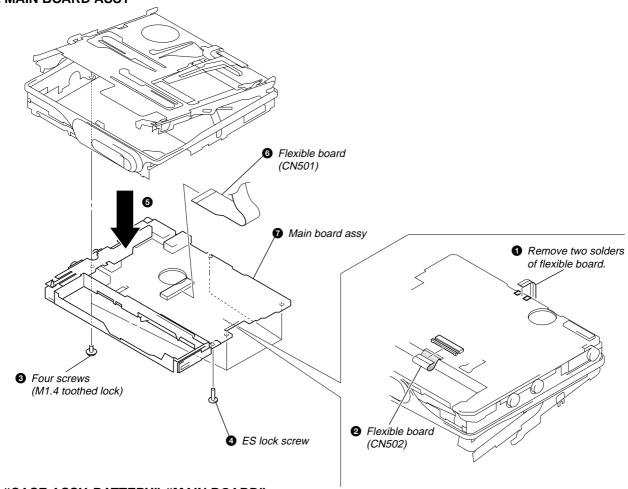
3-3. PANEL ASSY, UPPER SECTION



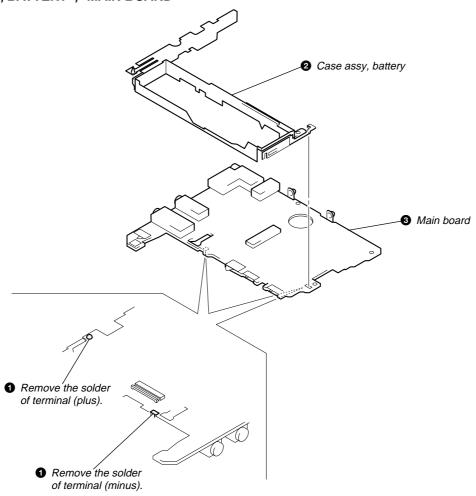
3-4. "LCD MODULE", "PANEL ASSY, UPPER"

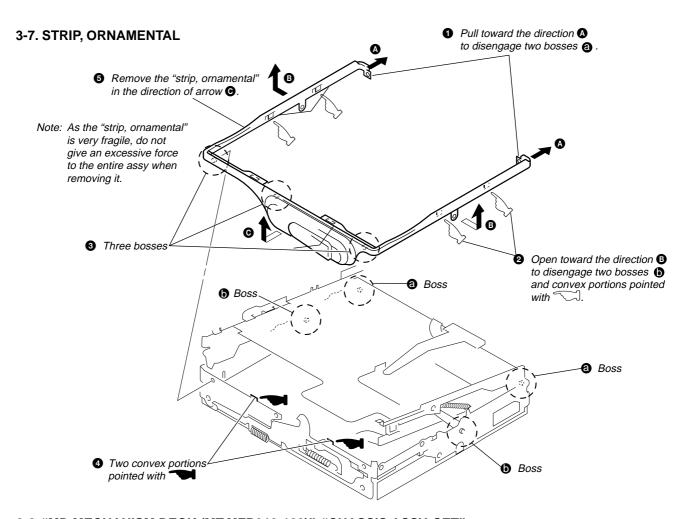


3-5. MAIN BOARD ASSY

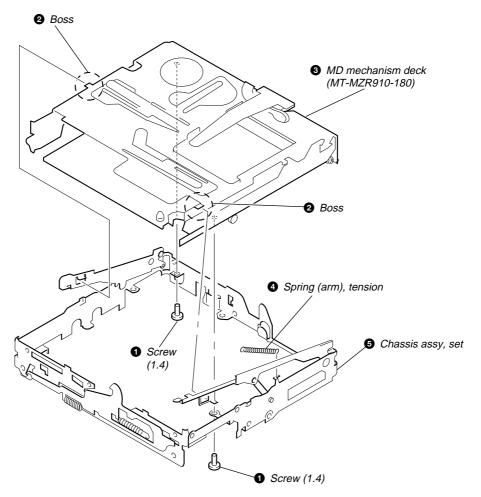


3-6. "CASE ASSY, BATTERY", "MAIN BOARD"

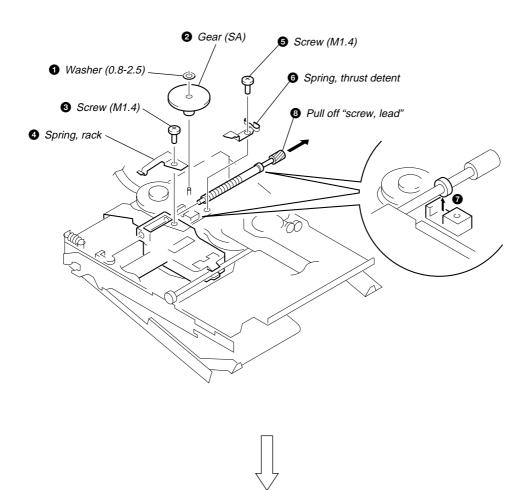


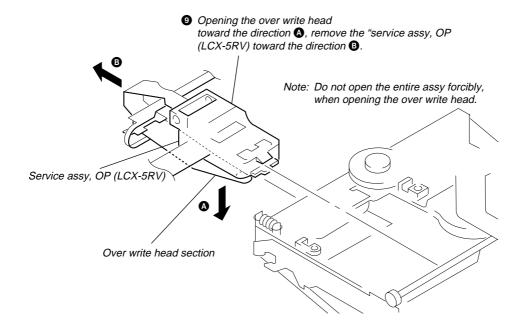


3-8. "MD MECHANISM DECK (MT-MZR910-180)", "CHASSIS ASSY, SET"

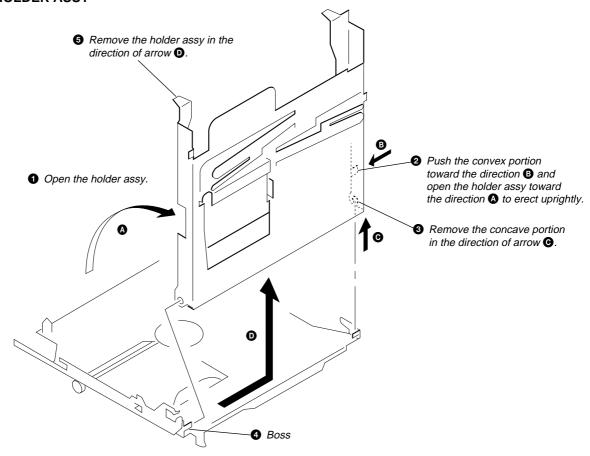


3-9. SERVICE ASSY, OP (LCX-5RV)

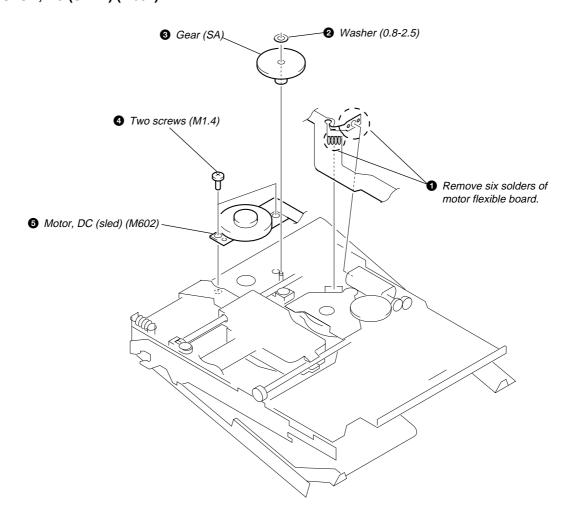




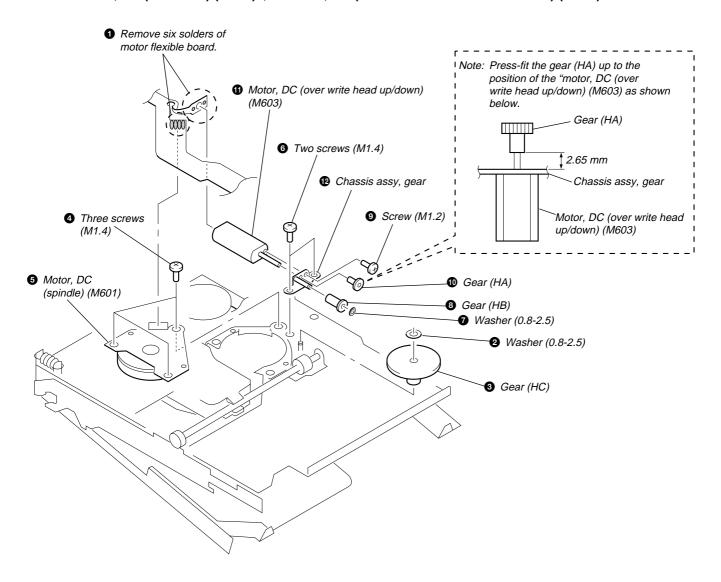
3-10. HOLDER ASSY



3-11. MOTOR, DC (SLED) (M602)



3-12. "MOTOR, DC (SPINDLE) (M601)", "MOTOR, DC (OVER WRITE HEAD UP/DOWN) (M603)"



SECTION 4 TEST MODE

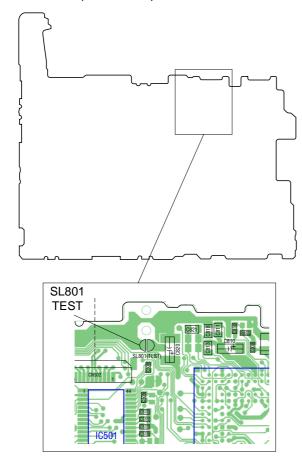
Outline

- This set provides the Overall adjustment mode that allows CD and MO discs to be automatically adjusted when in the test mode. In this overall adjustment mode, the disc is discriminate between CD and MO, and each adjustment is automatically executed in order. If a fault is found, the system displays its location. Also, the manual mode allows each individual adjustment to be automatically adjusted.
- Operation in the test mode is performed with the set. A key having no particular description in the text, indicates a set key.
- For the LCD display, the LCD on the remote commander is shown, but the contents of LCD display on the set are same.

Setting Method of Test Mode

There are three different methods to set the test mode:

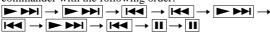
- ① Short SL801 (TEST) on the MAIN board with a solder bridge (connect pin (left) of IC801 to the ground) and turn on the HOLD switch. Then, turn on the power.
 - MAIN Board (Conductor Side) -



② In the normal mode, turn on the HOLD switch. While pressing the VOLUME – key press the following order:



③ In the normal mode, turn on the HOLD switch. While pressing the MCHG key, press the keys on the remote commander with the following order:

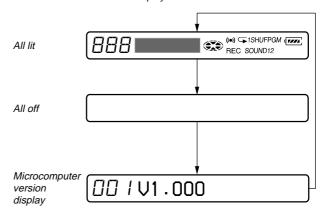


Note: If electrical adjustment (CD and MO overall adjustment) has not been finished completely, "NV Error" is displayed on LCDs of the set and the remote commander.

Operation in Setting the Test Mode

- When the test mode becomes active, first the display check mode is selected.
- Other mode can be selected from the display check mode.
- When the test mode is set, the LCD repeats the following display.

Remote commander LCD display



• When the **II** key is pressed and hold down, the display at that time is held so that display can be checked.

Releasing the Test Mode

For test mode set with the method ①:

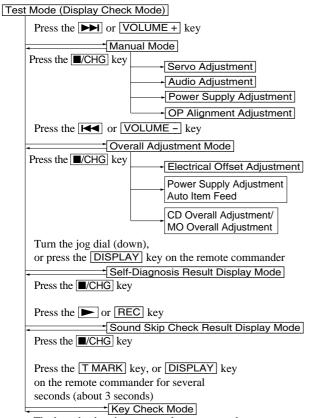
Turn off the power and open the solder bridge on SL801 (TEST) on the MAIN board.

Note: Remove the solders completely. Remaining could be shorted with the chassis, etc.

For test mode set with the method ② or ③:

Turn off the power.

Configuration of Test Mode



The key check quits, or open the upper panel

Manual Mode

Mode to adjust or check the operation of the set by function. Normally, the adjustment in this mode is not executed. However, the Manual mode is used to clear the memory, power supply adjustment, and laser power check before performing automatic adjustments in the Overall Adjustment mode.

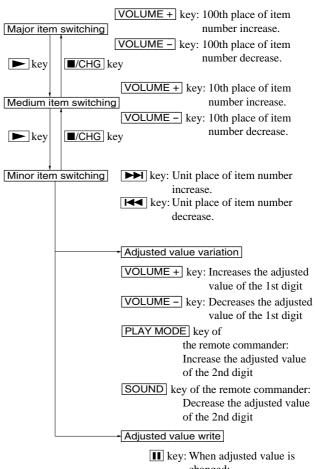
• Transition method in manual mode

- 1. Set the test mode (see page 13).
- Press the ►► or VOLUME+ key activates the manual mode where the LCD display as shown below.

Remote commander LCD display

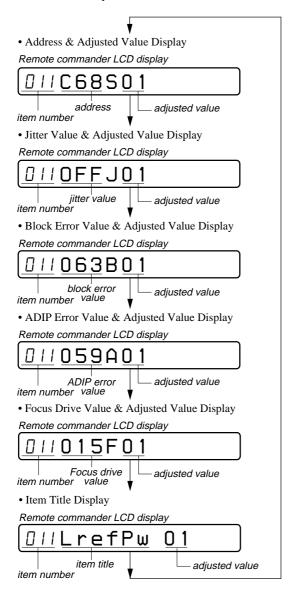
000 Manual

- During each test, the optical pick-up moves outward or inward while the key is pressed for several seconds respectively.
- Each test item is assigned with a 3-digit item number;
 100th place is a major item, 10th place is a medium item, and unit place is a minor item.
 - The values adjusted in the test mode are written to the nonvolatile memory (for the items where adjustment was made).



III key: When adjusted value is changed:
Adjusted value is written.
When adjusted value is not changed:
That item is adjusted automatically.

The display changes a shown below each time the jog dial (down) is turned or the DISPLAY key on the remote commander is pressed.



However in the power mode (item number 700's), only the item is displayed.

Overall Adjustment Mode

Mode to adjust the servo automatically in all items.

Normally, automatic adjustment is executed in this mode at the repair.

For further information, refer to "SECTION 5 ELECTRICAL ADJUSTMENTS" (see page 19).

Self-Diagnosis Result Display Mode

This set uses the self-diagnostic function system in which if an error occurred during the recording or playing, the mechanism control block and the power supply control block in the microcomputer detect it and record its cause as history in the nonvolatile memory.

By checking this history in the test mode, you can analyze a fault and determine its location.

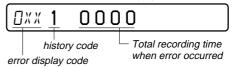
Total recording time is recorded as a guideline of how long the optical pickup has been used, and by comparing it with the total recording time at the time when an error occurred in the self-diagnosis result display mode, you can determine when the error occurred.

Clear both self-diagnosis history data and total recording time, if the optical pickup was replaced.

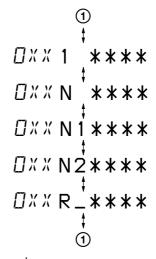
· Self-diagnosis result display mode setting method

- 1. Set the test mode (see page 13).
- 2. In the display check mode, turn the jog dial (down) or press the DISPLAY key on the remote commander activates the self-diagnosis result display mode where the LCD display as shown below.

Remote commander LCD display



3. Then, each time the ▶▶ key is pressed, LCD display descends by one as shown below. Also, the LCD display ascends by one when the ▶★ key is pressed.



%% : Error code
**** : Total recording time

If the jog dial (down) is turned or the <code>DISPLAY</code> key on remote commander is pressed with this display, the LCD switches to the simple display mode.

4. Quit the self-diagnosis result display mode, and press the

CHG key to return to the test mode (display check mode).

□

MZ-R910

• Description of error indication codes

Problem	Indication code	Meaning of code	Simple display	Description
No error	00	No error		No error
	01	Illegal access target address was specified	Adrs	Attempt to access an abnormal address
Servo system error	02	High temperature	Temp	High temperature detected
	03	Focus error	Fcus	Disordered focus or can not read an address
	04	Spindle error	Spdl	Abnormal rotation of disc
TOC error	11	TOC error	TOC	Faulty TOC contents
TOC entor	12	Data reading error	Data	Data could not be read at SYNC
Power supply system error	22	Low battery	LBat	Momentary interruption detected
	31	Offset error	Ofst	Offset error
	32	Focus error ABCD offset error	ABCD	Focus error ABCD offset error
Offset system error	33	Tracking error Offset error	TE	Tracking error Offset error
	34	X1 tracking error Offset error	X1TE	X1 tracking error Offset error
Disc error	35	MD DATA 2 disc error	MD2	MD DATA 2 disc error

• Description of indication history

History code number	Description
1	The first error
N	The last error
N1	One error before the last.
N2	Two errors before the last.
R_	Total recording time

Reset the Error Display Code

After servicing, reset the error display code.

• Setting method of reset the error display code

- 1. Set the test mode (see page 13).
- Turn the jog dial (down) or press the DISPLAY key on the remote commander activates the self-diagnosis result display mode.
- 3. To reset the error display code, press the

 the code is displayed (except "R_****").

 (All the data on the 1, N, N1, and N2 will be reset)

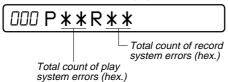
Sound Skip Check Result Display Mode

This set can display the count of errors that occurred during the recording/playing for checking.

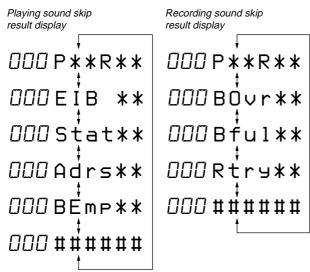
Setting method of sound skip check result display mode

- 1. Set the test mode (see page 13).
- Press the key or REC key, and the playing or recording sound skip result display mode becomes active respectively where the LCD displays the following.

Remote commander LCD display



3. When the key is pressed, total error count is displayed on the LCD, and each time the key is pressed, the display item moves down by one as shown below. Also, if the key is pressed, the display item moves up by one, then if the REC key is pressed, the display in the record mode appears. When the REC key is pressed, total error count is displayed on the LCD, and each time the key is pressed, the display item moves down by one as shown below. Also, if the key is pressed, the display item moves up by one, then if the key is pressed, the display in the play mode appears.



P**R**: Total play/record errors (hex.)

** : Counter of sound skip check each item (hex.)
#######: 6-digit address where sound was skipped last (hex.)

Cause of sound skip error

	Cause of error	Description of error
	EIB	Sound error correction error
Dlass	Stat	Decoder status error
Play	Adrs	Address access error
	BEmp	Buffer is empty
	BOvr	Buffer is full, and sounds were dumped
Record	Bful	Buffer capacity becomes less, and forcible writing occurred
	Rtry	Retry times over

4. To quit the sound skip check result display mode and to return to the test mode (display check mode), press the // key.

Jog and Key Check Mode

This set can check if the set and remote commander function normally.

· Setting method of jog check mode

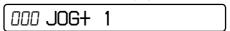
- 1. Set the test mode (see page 13).
- Press the jog button to activate the jog check mode and display as below.

Remote commander LCD display



3. Turn the jog dial downwards one click.

Remote commander LCD display



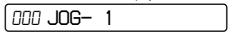
4. Turn the jog dial downwards three more clicks.

Remote commander LCD display



5. Turn the jog dial upwards one click.

Remote commander LCD display



6. Turn the jog dial upwards three more clicks.

Remote commander LCD display



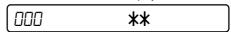
When the __/CHG key is pressed, it changes over to the key check mode.

Note: To enter the key check mode, it is not necessary to enter via the jog dial check mode. (Refer to next item)

• Setting method of key check mode

- 1. Set the test mode (see page 13).
- Press the TMARK key or DISPLAY key on the remote commander for several seconds (about 3 seconds) activates the key check mode. (At the last two digits, AD value of remote commander key line is displayed in hexadecimal)

Remote commander LCD display



**: AD value of the remote commander key (hexadecimal 00 to FF)

3. When each key on the set and on remote commander is pressed, its name is displayed on the remote commander LCD. (The operated position is displayed for 4 seconds after the slide switch is operated. If any other key is pressed during this display, the remote commander LCD switches to its name display)

MZ-R910

Example1: When the key on the set is pressed:

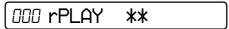
Remote commander LCD display



**: AD value of the remote commander key (hexadecimal 00 to FF)

Example2: When the key on the remote commander is pressed:

Remote commander LCD display



**: AD value of the remote commander key (hexadecimal 00 to FF)

 When all the keys on the set and on the remote commander are considered as OK, the following displays are shown for 4 seconds.

Example1: When the keys on the set are considered as OK:

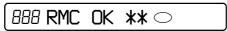
Remote commander LCD display



**: AD value of the remote commander key (hexadecimal 00 to FF)

Example2: When the keys on the remote commander are considered as OK:

Remote commander LCD display



**: AD value of the remote commander key (hexadecimal 00 to FF)

When all keys were checked or if the upper panel is opened, the key check mode quits and the test mode (display check mode) comes back.

SECTION 5 ELECTRICAL ADJUSTMENTS

Outline

- In this set, automatic adjustment of CD and MO can be performed by entering the test mode.
 - However, before starting automatic adjustment, the memory clear, power supply adjustment, and laser power check must be performed in the manual mode.
- A key having no particular description in the text, indicates a set key.
- For the LCD display, the LCD on the remote commander is shown, but the contents of LCD display on the set are same.

Precautions for Adjustment

- Adjustment must be done in the test mode only. After adjusting, release the test mode.
- 2. Use the following tools and measuring instruments.

Test CD disc

TDYS-1

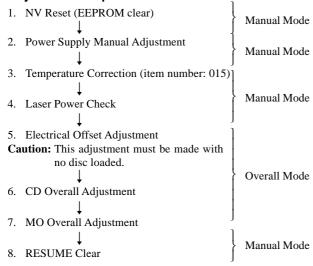
(Part No.: 4-963-646-01)

- SONY MO disc available on the market
- · Digital voltmeter
- Laser power meter LPM-8001

(Part No.: J-2501-046-A)

- Thermometer (using the Temperature Correction)
- Unless specified otherwise, supply DC 3V from the DC IN 3V jack (J601).
- 4. Switch position HOLD switch ON

Adjustment Sequence



NV Reset

Caution: The shipment data will be cleared when the NV is reset.

Therefore, change the NV adjusted values following the Change of NV Adjusted Values immediately after the NV was reset.

Change the NV adjustment values according to the microcomputer version.

· Setting method of NV reset

1. Select the manual mode of the test mode, and set item number 021 NV Reset (see page 14).

Remote commander LCD display

02 | ResNV CC

2. Press the **III** key.

Remote commander LCD display

@2 | ResOK?

3. Press the **III** key once more.

Remote commander LCD display

NV reset (after several seconds)

02 | Reset!

4. Press the 1/CHG key to quit the manual mode, and return the test mode (display check mode).

Change of NV adjusted values (version 1.300)

Caution: Change the NV adjustment values according to the microcomputer version.

In this set, some adjusted values were set in the manual mode at the shipment, but these will be cleared when the NV is reset. Therefore, modify the NV adjusted values through the following procedure immediately after the NV was reset.

- Item numbers in which the NV adjusted values are to be modified
 - Change ABCD gain [Hpit] initial value (item number 336)
 Caution: The ABCD gain [Hpit] initial value must be changed before the overall adjustment.
 - Change CLV drive voltage limiter (item numbers 865, 866)
 - Change x2 CLV speed gain, +6dB compared to conventional (item numbers 867, 868)
 - Change x2 CLV phase gain, +3dB compared to conventional (item numbers 871, 872)
 - Change x2/x1 switching temperature threshold value (+10°C → +5°C) (item numbers 873, 874)
- 2. NV adjusted values modifying procedure
- 1) Select manual mode of the test mode, and set item number 336 (see page 14).

Remote commander LCD display

335 AbcdGn **

**: Adjusted value

- 2) Adjust with the VOLUME+ key (adjusted value up) or VOL-UME- key (adjusted value down) so that the adjusted value becomes 08.
- 3) Press the **[11]** key to write the adjusted value.
- 4) Select manual mode of the test mode, and set item number 865 (see page 14).

Remote commander LCD display

865 V3 num **

**: Adjusted value

- 5) Adjust with the VOLUME + key (adjusted value up) or VOL-UME - key (adjusted value down) so that the adjusted value becomes 2C.
- 6) Press the **III** key to write the adjusted value.
- 7) Select manual mode of the test mode, and set item number 866 (see page 14).

Remote commander LCD display

866 V3 dat **

**: Adjusted value

- 8) Adjust with the VOLUME+ key (adjusted value up) or VOL-UME- key (adjusted value down) so that the adjusted value becomes B9.
- 9) Press the **III** key to write the adjusted value.
- 10) Select manual mode of the test mode, and set item number 867 (see page 14).

Remote commander LCD display

857 **V4 num ****

**: Adjusted value

- 11) Adjust with the VOLUME+ key (adjusted value up) or VOL-UME- key (adjusted value down) so that the adjusted value becomes C9.
- 12) Press the **III** key to write the adjusted value.
- 13) Select manual mode of the test mode, and set item number 868 (see page 14).

Remote commander LCD display

858 **V4** dat **

**: Adjusted value

- 14) Adjust with the VOLUME+ key (adjusted value up) or VOL-UME - key (adjusted value down) so that the adjusted value becomes 80
- 15) Press the **II** key to write the adjusted value.
- 16) Select manual mode of the test mode, and set item number 871 (see page 14).

Remote commander LCD display

87/**V5 num ****

**: Adjusted value

- 17) Adjust with the VOLUME+ key (adjusted value up) or VOL-UME- key (adjusted value down) so that the adjusted value becomes CA
- 18) Press the **III** key to write the adjusted value.
- 19) Select manual mode of the test mode, and set item number 872 (see page 14).

Remote commander LCD display

872 **V5** dat **

**: Adjusted value

- 20) Adjust with the VOLUME+ key (adjusted value up) or VOLUME- key (adjusted value down) so that the adjusted value becomes 2D.
- 21) Press the [1] key to write the adjusted value.
- 22) Select manual mode of the test mode, and set item number 873 (see page 14).

Remote commander LCD display

873 **V6 num ****

**: Adjusted value

- 23) Adjust with the VOLUME+ key (adjusted value up) or VOLUME- key (adjusted value down) so that the adjusted value becomes BB.
- 24) Press the **III** key to write the adjusted value.
- 25) Select manual mode of the test mode, and set item number 874 (see page 14).

Remote commander LCD display

874 V6 dat **

**: Adjusted value

- 26) Adjust with the VOLUME+ key (adjusted value up) or VOLUME- key (adjusted value down) so that the adjusted value becomes 05.
- 27) Press the **III** key to write the adjusted value.

Power Supply Manual Adjustment

· Adjustment sequence

Adjustment must be done with the following steps.

- 1. Vc PWM Duty (L) adjustment (item number: 762)
- 2. Vc PWM Duty (H) adjustment (item number: 763)
- VI PWM Duty (L) adjustment (item number: 764)
- 4. VI PWM Duty (H) adjustment (item number: 765)
- 5. Vrec PWM Duty (L) adjustment (item number: 766)
- 6. Vrec PWM Duty (H) adjustment (item number: 767)
- 7. Vd PWM Duty adjustment (item number: 768)

· Setting method of power supply manual adjustment

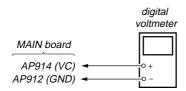
- 1. Make sure that the power supply voltage is 3V.
- 2. Select the manual mode of the test mode (see page 14).
- 3. Set item number.
- Adjustment method of Vc PWM Duty (L) (item number: 762)

Remote commander LCD display



**: Adjusted value

 Connect a digital voltmeter to the AP914 (VC) on the MAIN board, and adjust VOLUME + key (voltage up) or VOLUME key (voltage down) so that the voltage becomes 2.40^{+0.005}_{-0.01} V.



2. Press the **III** key to write the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

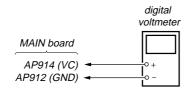
 Adjustment method of Vc PWM Duty (H) (item number: 763)

Remote commander LCD display



**: Adjusted value

Connect a digital voltmeter to the AP914 (VC) on the MAIN board, and adjust VOLUME + key (voltage up) or VOLUME - key (voltage down) so that the voltage becomes 2.75 ± 0.015 V

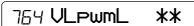


2. Press the **III** key to write the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

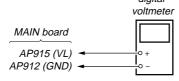
 Adjustment method of VI PWM Duty (L) (item number: 764)

Remote commander LCD display



**: Adjusted value

Connect a digital voltmeter to the AP915 (VL) on the MAIN board, and adjust VOLUME + key (voltage up) or VOLUME - key (voltage down) so that the voltage becomes 2.30^{+0.005}_{-0.01} V. digital



2. Press the key to write the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

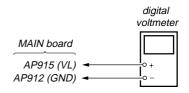
 Adjustment method of VI PWM Duty (H) (item number: 765)

Remote commander LCD display



**: Adjusted value

Connect a digital voltmeter to the AP915 (VL) on the MAIN board, and adjust VOLUME+ key (voltage up) or VOLUME key (voltage down) so that the voltage becomes 2.55^{+0.005}_{-0.005} V.



2. Press the **III** key to write the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

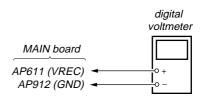
 Adjustment method of Vrec PWM Duty (L) (item number: 766)

Remote commander LCD display



**: Adjusted value

Connect a digital voltmeter to the AP611 (VREC) on the MAIN board, and adjust VOLUME+ key (voltage up) or VOLUME key (voltage down) so that the voltage becomes 1.08^{+0.005}_{-0.015} V.

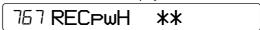


2. Press the **III** key to write the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

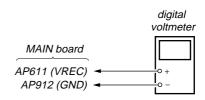
 Adjustment method of Vrec PWM Duty (H) (item number: 767)

Remote commander LCD display



**: Adjusted value

Connect a digital voltmeter to the AP611 (VREC) on the MAIN board, and adjust VOLUME + key (voltage up) or VOLUME = key (voltage down) so that the voltage becomes 1.65 to 1.70 V.



2. Press the [1] key to write the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

 Adjustment method of Vd PWM Duty (item number: 768)

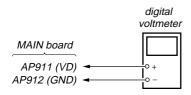
Remote commander LCD display



**: Adjusted value

MZ-R910

Connect a digital voltmeter to the AP911 (VD) on the MAIN board, and adjust VOLUME + key (voltage up) or VOLUME - key (voltage down) so that the voltage becomes 1.31 ± 0.010 V



2. Press the wite the adjusted value.

Adjustment and Connection Location: MAIN board (see page 23)

Temperature Correction

- · Adjustment method of temperature correction
- Select the manual mode of test mode, and set the item number 015 (see page 14).

Remote commander LCD display



**: Adjusted value

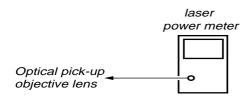
- 2. Measure the ambient temperature.
- Adjust with VOLUME + , VOLUME key so that the adjusted value (hexadecimal value) becomes the ambient temperature.

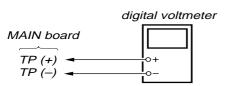
(Initial value: 19h = 25 °C, Adjusting range: 80h to 7fh (–128 °C to +127 °C)

4. Press the **III** key to write the adjusted value.

Laser Power Check

Connection:

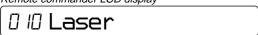




Checking Method:

1. Select the manual mode of test mode (see page 14), and set the laser power adjusting mode (item number 010).

Remote commander LCD display



- Press the key continuously until the optical pick-up moves to the most inward track.
- Open the cover and set the laser power meter on the objective lens of the optical pick-up.

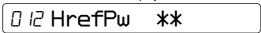
 Press the key, and set the laser MO read adjustment mode (item number 011).

Remote commander LCD display

[]//LrefPw **

- 5. Check that the laser power meter reading is 0.81 ± 0.08 mW.
- Check that the voltage both ends (TP (+) and TP (-)) of resistor R521 at this time is below 44 mV.
- Press the key, and set the laser CD read adjustment mode (item number 012).

Remote commander LCD display



- 8. Check that the laser power meter reading is 0.97 \pm 0.10 mW.
- Check that the voltage both ends (TP (+) and TP (-)) of resistor R521 at this time is below 44 mV.
- 10. Press the key, and set the laser MO write adjustment mode (item number 013).

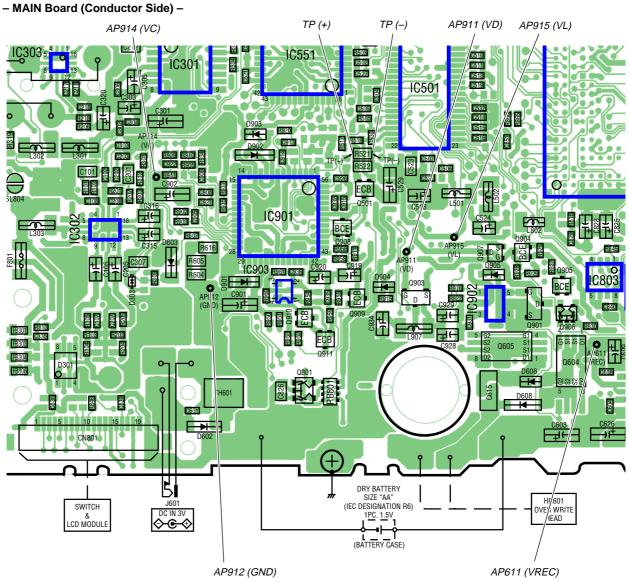
Remote commander LCD display



- 11. Check that the laser power meter reading is 4.95 ± 0.50 mW.
- 12. Check that the voltage both ends (TP (+) and TP (-)) of resistor R521 at this time is below 80 mV.
- 13. Press the **/**CHG key to quit the manual mode, and activate the test mode (display check mode).

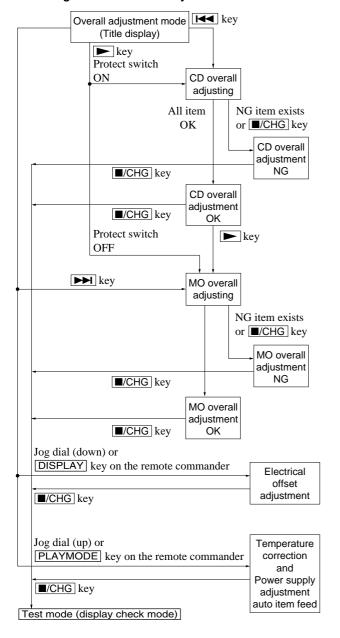
Adjustment and Connection Location: MAIN board (see page 23)

Adjustment/checking and Connection Location:



Overall Adjustment Mode

· Configuration of overall adjustment mode



· Overall adjustment mode (title display)

Remote commander LCD display



: (Disc mark) At end of power supply adjustment: Outside lit At end of electrical offset adj.: Inside lit

Note: On the set having microcomputer version 1.000, the disc mark is displayed on the remote commander LCD only.

**: Left side = MO overall adjustment information

F*: MO overall adjustment completed

1*: Manual adjustment exists (overall adj. not completed)

0*: Not adjusted

Right side = CD overall adjustment information

*F: CD overall adjustment completed

*1: Manual adjustment exists (overall adj. not completed)

*0: Not adjusted

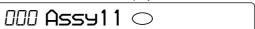
Note: Adjust the CD first, when performing adjustment.

· Electrical offset adjusting method

Caution: The electrical offset adjustment must be made with no disc loaded

- 1. Make sure that the power supply voltage is 3 V.
- 2. Set the test mode (see page 13).
- Press the or volume key to activate the overall adjustment mode.

Remote commander LCD display



 Turn the jog dial (down), or press the DISPLAY key on the remote commander.

Remote commander LCD display



Electrical offset adjustment is over, if the following display appears.

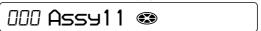
Remote commander LCD display



Adjustment method of CD and MO overall adjustment mode

- 1. Set the test mode (see page 13).
- Press the or VOLUME key to activate the overall adjustment mode.

Remote commander LCD display



3. Insert CD disc in the set, and press the the key to set the CD overall adjustment mode. Automatic adjustments are made.

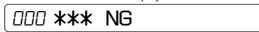
Remote commander LCD display



XXX: Item number for which an adjustment is being executed.

 In case of CD overall adjustment NG, reset the NV (see page 19), then readjust from the temperature correction (see page 22).

Remote commander LCD display



**: NG item number.

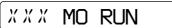
5. If OK through the CD overall adjustments, then perform MO overall adjustments.

Remote commander LCD display



 Insert MO disc in the set, and press the key to set the MO overall adjustment mode. Automatic adjustments are made.

Remote commander LCD display



XXX: Item number for which an adjustment is being executed.

 In case of MO overall adjustment NG, reset the NV (see page 19), then readjust from the temperature correction (see page 22).

Remote commander LCD display



**: NG item number.

If OK through the MO overall adjustments, press the // (CHG) key to return to the test mode and terminate the overall adjustment mode.

Remote commander LCD display



· CD and MO overall adjustment items

1. CD overall adjustment items

Item No.	Description
312	
313	CD electrical offset adjustment
314	
321	CD tracking error gain adjustment
328	CD TWPP gain adjustment
324	CD tracking error offset adjustment
332	CD tracking error onset adjustment
336	CD ABCD gain adjustment
344	CD focus gain adjustment
345	CD tracking gain adjustment
521	CD two-axis sensitivity adjustment
522	CD two-axis sensitivity adjustment

2. MO overall adjustment items

Item No.	Description
112	
113	MO electrical offset adjustment
114	We decined onset adjustment
118	
221	Low reflective CD tracking error gain adjustment
224	Low reflective CD tracking error offset adjustment
232	Low reflective OD tracking error onset adjustment
236	Low reflective CD ABCD gain adjustment
244	Low reflective CD focus gain adjustment
245	Low reflective CD tracking gain adjustment
121	MO tracking error gain adjustment
122	MO TON offset adjustment
134	MO TWPP gain adjustment
131	MO triple speed read TWPP offset adjustment
132	ino triple speed read TWFF offset adjustment
136	MO ABCD gain adjustment
144	MO focus gain adjustment
145	MO tracking gain adjustment
138	MO RF gain adjustment
434	MO write TWPP gain adjustment
431	MO write TWPP offset adjustment
432	MO tracking error offset adjustment
436	MO write ABCD gain adjustment
445	MO write tracking gain adjustment
411	MO normal speed read TWPP offset adjustment
412	MO tracking error offset adjustment
448	20 sec full recording

Resume Clear

Perform the Resume clear when all adjustments completed.

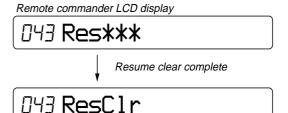
· Resume clear setting method

1. Select the manual mode of the test mode, and set item number 043 (see page 14).

Remote commander LCD display

043 Resume CC

2. Press the **III** key.



 Press the __/CHG key to return to the test mode (display check mode).

Patch Data Rewriting When Nonvolatile Memory was Replaced

On this set, if the nonvolatile memory was replaced, the modified program data must be written to the nonvolatile memory.

In such a case, write the modified data that meets the microcomputer version following the procedure provided below.

• Modified data writing method (version 1.300)

 Select the manual mode of the test mode, and set item number 022 (see page 14).

Remote commander LCD display

022 PatClr CC

2. Press the **III** key to initialize the patch data.

(The modified data writing is over, if the adjusted value changesto DD)

Remote commander LCD display

022 ***SDD

DD : Adjusted value

3. Press the key or key to set item number 023.

Remote commander LCD display

023 Patch00

00 : Adjusted value

- Press the VOLUME + key once to change the adjusted value to 01.
- Press the DISPLAY key on the remote commander for several seconds (about 3 seconds) to activate the patch data write mode.

(The following display will appear where 00 is blinking)

Remote commander LCD display

023 115800

00 : Adjusted value

Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 16.

Remote commander LCD display

023 115816

16 : Adjusted value

7. Press the **III** key.

(1158 is blinking)

Press the VOLUME + key once to change the blinking portion to 1159.

Remote commander LCD display

023 115900

00 : Adjusted value

9. Press the **■** /CHG key.

(00 is blinking)

Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes EA.

Remote commander LCD display

023 1159EA

EA: Adjusted value

11. Press the key. (EA is blinking)

12. Press the VOLUME + key three times to change the blinking portion to 115C.

Remote commander LCD display

D23 115C00

00 : Adjusted value

13. Press the **■** /CHG key.

(00 is blinking)

Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 28.

Remote commander LCD display

□23 115C28

28 : Adjusted value

15. Press the wey.

(115C is blinking)

16. Press the VOLUME + key three times to change the blinking portion to 115F then press the

√CHG key.

Remote commander LCD display

023 115F00

00 : Adjusted value

17. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes DE.

Remote commander LCD display

023 115FDE

DE : Adjusted value

18. Press the **III** key.

(115F is blinking)

19. Press the VOLUME + key to change the blinking portion to 1178, and press the DISPLAY key on the remote commander for several seconds (about 3 seconds) to exit the patch data write mode and display as below.

Remote commander LCD display

023 Patch01

01 : Adjusted value

20. Press the VOLUME + key to display as below.

Remote commander LCD display

023 ********09

09 : Adjusted value

21. Press the DISPLAY key on the remote commander for several seconds (about 3 seconds) to activate the patch data write mode. (The following display will appear where 00 is blinking)

Remote commander LCD display

□23 117800

00 : Adjusted value

Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 01.

Remote commander LCD display

023 117801

01 : Adjusted value

23. Press the **|||** key. (1178 is blinking)

24 Press the VOLUME + key once to change the blinking portion to 1179.

Remote commander LCD display

023 117900

00 : Adjusted value

25. Press the **■** /CHG key.

(00 is blinking)

26. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 10.

Remote commander LCD display

023 117910

10 : Adjusted value

27. Press the **III** key.

(1179 is blinking)

28. Press the VOLUME + key once to change the blinking portion to 117A.

Remote commander LCD display

023 117A00

00 : Adjusted value

29. Press the **I**/CHG key.

(00 is blinking)

30. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

[]23 117AB0

B0 : Adjusted value

31. Press the 🚺 key.

(117A is blinking)

32. Press the VOLUME + key once to change the blinking portion to 117B.

Remote commander LCD display

□23 117B00

00 : Adjusted value

33. Press the **I**/CHG key.

(00 is blinking)

34. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 117BE3

E3 : Adjusted value

35. Press the **III** key.

(117B is blinking)

Press the VOLUME + key once to change the blinking portion to 117C.

Remote commander LCD display

@23 117C00

00 : Adjusted value

37. Press the **I**/CHG key. (00 is blinking)

38. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 7C.

Remote commander LCD display

023 117C7C

7C : Adjusted value

39. Press the **III** key.

(117C is blinking)

Press the VOLUME + key once to change the blinking portion to 117D.

Remote commander LCD display

□23 117D00

00 : Adjusted value

41. Press the **I**/CHG key.

(00 is blinking)

42. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 117DB0

B0 : Adjusted value

43. Press the **III** key.

(117D is blinking)

Press the VOLUME + key once to change the blinking portion to 117E.

Remote commander LCD display

□23 117E00

00 : Adjusted value

45. Press the **■** /CHG key.

(00 is blinking)

Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 9F.

Remote commander LCD display

023 117E9F

9F : Adjusted value

47. Press the **III** key.

(117E is blinking)

Press the VOLUME + key once to change the blinking portion to 117F.

Remote commander LCD display

023 117F00

00 : Adjusted value

49. Press the **I**/CHG key. (00 is blinking)

Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 117FE5

E5 : Adjusted value

51. Press the 🔢 key.

(117F is blinking)

52. Press the VOLUME + key twice to change the blinking portion to 1181.

Remote commander LCD display

023 118100

00 : Adjusted value

53. Press the **■** /CHG key.

(00 is blinking)

54. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 118180

80 : Adjusted value

55. Press the [key.

(1181 is blinking)

(1181 is blinking)

56. Press the VOLUME + key once to change the blinking portion to 1182.

Remote commander LCD display

023 118200

00 : Adjusted value

57. Press the **■** /CHG key.

(00 is blinking)

58. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 9B.

Remote commander LCD display

□23 11829B

9B : Adjusted value

59. Press the **III** key.

(1182 is blinking)

Press the VOLUME + key once to change the blinking portion to 1183.

Remote commander LCD display

023 118300

00 : Adjusted value

61. Press the **I** /CHG key.

(00 is blinking)

62. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

1183E5

E5 : Adjusted value

63. Press the **III** key.

(1183 is blinking)

Press the VOLUME + key once to change the blinking portion to 1184.

Remote commander LCD display

023 118400

84 : Adjusted value

65. Press the /CHG key. (00 is blinking)

66. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 03.

Remote commander LCD display

023 118403

03 : Adjusted value

67. Press the **III** key.

(1184 is blinking)

Press the VOLUME + key once to change the blinking portion to 1185.

Remote commander LCD display

023 118500

00 : Adjusted value

69. Press the **I**/CHG key

(00 is blinking)

70. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 9B.

Remote commander LCD display

023 11859B

9B : Adjusted value

71. Press the **III** key

(1185 is blinking)

Press the VOLUME + key once to change the blinking portion to 1186.

Remote commander LCD display

023 118600

00 : Adjusted value

73. Press the **M**/CHG key.

(00 is blinking)

74. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

□23 1186B0

B0 : Adjusted value

75. Press the key. (1186 is blinking)

Press the VOLUME + key once to change the blinking portion to 1187.

Remote commander LCD display

□23 118700

00 : Adjusted value

77. Press the **Architect** key.

(00 is blinking)

78. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 1187E3

E3 : Adjusted value

79. Press the key. (1187 is blinking)

Press the VOLUME + key once to change the blinking portion to 1188.

Remote commander LCD display

D23 118800

00 : Adjusted value

81. Press the **/CHG** key.

(00 is blinking)

82. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 09.

Remote commander LCD display

□23 118809

09 : Adjusted value

83. Press the **III** key.

(1188 is blinking)

84. Press the VOLUME + key once to change the blinking portion to 1189.

Remote commander LCD display

023 118900

00 : Adjusted value

85. Press the **■** /CHG key.

(00 is blinking)

86. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

□23 118980

80 : Adjusted value

87. Press the 🚺 key.

(1189 is blinking)

Press the VOLUME + key once to change the blinking portion to 118A.

Remote commander LCD display

□23 118A00

00 : Adjusted value

89. Press the **I**/CHG key.

(00 is blinking)

90. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 18.

Remote commander LCD display

023 118A18

18 : Adjusted value

91. Press the **III** key.

(118A is blinking)

Press the VOLUME + key once to change the blinking portion to 118B.

Remote commander LCD display

□23 118B00

00 : Adjusted value

93. Press the /CHG key. (00 is blinking)

94. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E0.

Remote commander LCD display

023 118BE0

E0 : Adjusted value

95. Press the [III] key.

(118B is blinking)

Press the VOLUME + key once to change the blinking portion to 118C.

Remote commander LCD display

023 118C00

00 : Adjusted value

97. Press the **■** /CHG key.

(00 is blinking)

98. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 04.

Remote commander LCD display

023 118C04

04 : Adjusted value

99. Press the [11] key.

(118C is blinking)

100. Press the VOLUME + key three times to change the blinking portion to 118F.

Remote commander LCD display

023 118F00

00 : Adjusted value

101. Press the **■** /CHG key.

(00 is blinking)

102. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

023 118F0A

0A : Adjusted value

103. Press the **III** key.

(118F is blinking)

104. Press the VOLUME + key twice times to change the blinking portion to 1191.

Remote commander LCD display

023 119100

91 : Adjusted value

105. Press the **■** /CHG key.

(00 is blinking)

106. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 119180

80 : Adjusted value

107. Press the **III** key. (1105 is blinking)

108. Press the VOLUME + key once to change the blinking portion to 1192.

Remote commander LCD display

023 119200

00 : Adjusted value

109. Press the **■** /CHG key.

(00 is blinking)

110. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes D4.

Remote commander LCD display

023 1192D4

D4 : Adjusted value

111. Press the [III] key.

(1192 is blinking)

112. Press the VOLUME + key once to change the blinking portion to 1193.

Remote commander LCD display

D23 119300

00 : Adjusted value

113. Press the /CHG key.

(00 is blinking)

114. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

1193E5

E5 : Adjusted value

115. Press the [key.

(1193 is blinking)

116. Press the VOLUME + key once to change the blinking portion to 1194.

Remote commander LCD display

023 119400

00 : Adjusted value

117. Press the **■** /CHG key.

(00 is blinking)

118. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 01.

Remote commander LCD display

023 119401

01 : Adjusted value

119. Press the **III** key.

(1194 is blinking)

120. Press the VOLUME + key once to change the blinking portion to 1195.

Remote commander LCD display

023 119500

00 : Adjusted value

121. Press the /CHG key. (00 is blinking)

122. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes A0.

Remote commander LCD display

023 1195A0

A0 : Adjusted value

123. Press the 🔢 key.

(1195 is blinking)

124. Press the VOLUME + key once to change the blinking portion to 1196.

Remote commander LCD display

□23 119600

00 : Adjusted value

125. Press the **■** /CHG key.

(00 is blinking)

126. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 1196B0

B0 : Adjusted value

127. Press the [1] key.

(1196 is blinking)

128. Press the VOLUME + key once to change the blinking portion to 1197.

Remote commander LCD display

023 119700

00 : Adjusted value

129. Press the **■** /CHG key.

(00 is blinking)

130. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 1197E3

E3 : Adjusted value

131. Press the [1] key.

(1197 is blinking)

132. Press the VOLUME + key once to change the blinking portion to 1198.

Remote commander LCD display

023 119800

00 : Adjusted value

133. Press the **■** /CHG key.

(00 is blinking)

134. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

@23 11980A

0A : Adjusted value

135. Press the **III** key. (1198 is blinking)

136. Press the VOLUME + key once to change the blinking portion to 1199.

Remote commander LCD display

023 119900

00 : Adjusted value

137. Press the **I** /CHG key.

(00 is blinking)

138. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

□23 119980

80 : Adjusted value

139. Press the **III** key.

(1199 is blinking)

140. Press the VOLUME + key once to change the blinking portion to 119A.

Remote commander LCD display

D23 119A00

00 : Adjusted value

141. Press the **■** /CHG key.

(00 is blinking)

142. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 88.

Remote commander LCD display

□23 119A88

88 : Adjusted value

143. Press the [1] key.

(119A is blinking)

144. Press the VOLUME + key once to change the blinking portion to 119B.

Remote commander LCD display

@23 119B00

00 : Adjusted value

145. Press the **■** /CHG key.

(00 is blinking)

146. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

023 119BE1

E1 : Adjusted value

147. Press the 🔢 key.

(11D0 is blinking)

148. Press the VOLUME + key twice to change the blinking portion to 119D.

Remote commander LCD display

□23 119D00

00 : Adjusted value

150. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

D23 119D80

80 : Adjusted value

151. Press the [III] key.

(119D is blinking)

152. Press the VOLUME + key once to change the blinking portion to 119E.

Remote commander LCD display

023 119E00

00 : Adjusted value

153. Press the **■** /CHG key.

(00 is blinking)

154. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes C4.

Remote commander LCD display

023 119EC4

C4 : Adjusted value

155. Press the [key.

(119E is blinking)

156. Press the VOLUME + key once to change the blinking portion to 119F.

Remote commander LCD display

023 119F00

00 : Adjusted value

157. Press the **■** /CHG key.

(00 is blinking)

158. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 119FE5

E5 : Adjusted value

159. Press the [III] key.

(119F is blinking)

160. Press the VOLUME + key once to change the blinking portion to 11A0.

Remote commander LCD display

000A11 E50

00 : Adjusted value

161. Press the **■** /CHG key.

(00 is blinking)

162. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 12.

Remote commander LCD display

D23 11A012

12 : Adjusted value

163. Press the **III** key. (11A0 is blinking)

164. Press the VOLUME + key three times to change the blinking portion to 11A3.

Remote commander LCD display

023 11A300

00 : Adjusted value

165. Press the **■** /CHG key.

(00 is blinking)

166. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes EA.

Remote commander LCD display

023 11A3EA

EA : Adjusted value

167. Press the 🚻 key.

(11EA is blinking)

168. Press the VOLUME + key twice to change the blinking portion to 11A5.

Remote commander LCD display

D23 11A500

00 : Adjusted value

169. Press the **■** /CHG key.

(00 is blinking)

170. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

11A580

80 : Adjusted value

171. Press the [key.

(11A5 is blinking)

172. Press the VOLUME + key once to change the blinking portion to 11A6.

Remote commander LCD display

□23 11A600

00 : Adjusted value

173. Press the **■** /CHG key.

(00 is blinking)

174. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 9B.

Remote commander LCD display

02311A69B

9B : Adjusted value

175. Press the 🔢 key.

(11A6 is blinking)

176. Press the VOLUME + key once to change the blinking portion to 11A7.

Remote commander LCD display

023 11A700

00 : Adjusted value

177. Press the /CHG key. (00 is blinking)

178. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 11A7E5

E5 : Adjusted value

179. Press the 🚻 key.

(11A7 is blinking)

180. Press the VOLUME + key once to change the blinking portion to 11A8.

Remote commander LCD display

023 11A800

00 : Adjusted value

181. Press the **■** /CHG key.

(00 is blinking)

182. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0C.

Remote commander LCD display

023 11A80C

OC : Adjusted value

183. Press the **III** key

(11A8 is blinking)

184. Press the VOLUME + key once to change the blinking portion to 11A9.

Remote commander LCD display

023 11A900

00 : Adjusted value

185. Press the **■** /CHG key.

(00 is blinking)

186. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 90.

Remote commander LCD display

023 11A990

90 : Adjusted value

187. Press the **III** key.

(11A9 is blinking)

188. Press the VOLUME + key once to change the blinking portion to 11AA.

Remote commander LCD display

023 11AA00

00 : Adjusted value

189. Press the **■** /CHG key.

(00 is blinking)

190. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 11AAB0

B0 : Adjusted value

191. Press the [11] key.

(11AA is blinking)

192. Press the VOLUME + key once to change the blinking portion to 11AB.

Remote commander LCD display

023 11AB00

00: Adjusted value

193. Press the **I** /CHG key.

(00 is blinking)

194. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

□23 11ABE3

E3: Adjusted value

195. Press the 🔢 key.

(11AB is blinking)

196. Press the VOLUME + key once to change the blinking portion to 11AC.

Remote commander LCD display

D23 11AC00

00 : Adjusted value

197. Press the **■** /CHG key.

(00 is blinking)

198. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 09.

Remote commander LCD display

@2311AC09

09: Adjusted value

199. Press the 🚻 key.

(11AC is blinking)

200. Press the VOLUME + key once to change the blinking portion to 11AD.

Remote commander LCD display

[*□23* 11AD00

00 : Adjusted value

201. Press the **■** /CHG key.

(00 is blinking)

202. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11AD80

80 : Adjusted value

203. Press the **III** key.

(11AD is blinking)

204. Press the VOLUME + key once to change the blinking portion to 11AE.

Remote commander LCD display

023 11AE00

00 : Adjusted value

205. Press the /CHG key. (00 is blinking)

206. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 18.

Remote commander LCD display

023 11AE18

18 : Adjusted value

207. Press the [11] key.

(11AE is blinking)

208. Press the VOLUME + key once to change the blinking portion to 11AF.

Remote commander LCD display

023 11AF00

00 : Adjusted value

209. Press the **■** /CHG key.

(00 is blinking)

210. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E0.

Remote commander LCD display

023 11AFE0

E0 : Adjusted value

211. Press the [1] key.

(11AF is blinking)

212. Press the VOLUME + key once to change the blinking portion to 11B0.

Remote commander LCD display

023 11B000

00 : Adjusted value

213. Press the **I**/CHG key.

(00 is blinking)

214. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 04.

Remote commander LCD display

□23 11B004

04 : Adjusted value

215. Press the [III] key.

(11B0 is blinking)

216. Press the VOLUME + key three times to change the blinking portion to 11B3.

Remote commander LCD display

023 11B300

00 : Adjusted value

217. Press the **■** /CHG key.

(00 is blinking)

218. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

023 11B30A

0A : Adjusted value

219. Press the **■** key. (11B3 is blinking)

220. Press the VOLUME + key twice to change the blinking portion to 11B5.

Remote commander LCD display

@23 11B500

00 : Adjusted value

221. Press the **■** /CHG key.

(00 is blinking)

222. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11B580

80 : Adjusted value

223. Press the **III** key.

(11B5 is blinking)

224. Press the VOLUME + key once to change the blinking portion to 11B6.

Remote commander LCD display

□23 11B600

00 : Adjusted value

225. Press the **■** /CHG key.

(00 is blinking)

226. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes D4.

Remote commander LCD display

023 11B6D4

D4 : Adjusted value

227. Press the [1] key.

(11B6 is blinking)

228. Press the VOLUME + key once to change the blinking portion to 11B7.

Remote commander LCD display

□23 11B700

00 : Adjusted value

229. Press the **I**/CHG key.

(00 is blinking)

230. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 11B7E5

E5 : Adjusted value

231. Press the **t** key.

(11B7 is blinking)

232. Press the VOLUME + key once to change the blinking portion to 11B8.

Remote commander LCD display

□23 11B800

00 : Adjusted value

233. Press the **/CHG** key.

(00 is blinking)

234. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 02.

Remote commander LCD display

023 11B802

02 : Adjusted value

235. Press the [1] key.

(11B8 is blinking)

236. Press the VOLUME + key once to change the blinking portion to 11B9.

Remote commander LCD display

11B900

00 : Adjusted value

237. Press the **■** /CHG key.

(00 is blinking)

238. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes A0.

Remote commander LCD display

023 11B9A0

A0 : Adjusted value

239. Press the [1] key.

(11B9 is blinking)

240. Press the VOLUME + key once to change the blinking portion to 11BA.

Remote commander LCD display

02311BA00

00 : Adjusted value

241. Press the **I**/CHG key.

(00 is blinking)

242. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 11BAB0

B0 : Adjusted value

243. Press the [1] key.

(11BA is blinking)

244. Press the VOLUME + key once to change the blinking portion to 11BB.

Remote commander LCD display

023 11BB00

00 : Adjusted value

245. Press the /CHG key.

(00 is blinking)

246. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 11BBE3

E3 : Adjusted value

247. Press the **■** key. (11BB is blinking)

248. Press the VOLUME + key once to change the blinking portion to 11BC.

Remote commander LCD display

023 11BC00

00 : Adjusted value

249. Press the /CHG key.

(00 is blinking)

250. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

023 11BC0A

0A : Adjusted value

251. Press the key.

(11BC is blinking)

252. Press the VOLUME + key once to change the blinking portion to 11BD.

Remote commander LCD display

□23 11BD00

00 : Adjusted value

253. Press the **I** /CHG key.

(00 is blinking)

254. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11BD80

80 : Adjusted value

255. Press the wey.

(11BD is blinking)

256. Press the VOLUME + key once to change the blinking portion to 11BE.

Remote commander LCD display

023 11BE00

00 : Adjusted value

257. Press the **■** /CHG key.

(00 is blinking)

258. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 88.

Remote commander LCD display

023 11BE88

88 : Adjusted value

259. Press the **III** key.

(11BE is blinking)

260. Press the VOLUME + key once to change the blinking portion to 11BF.

Remote commander LCD display

023 11BF00

00 : Adjusted value

261. Press the **■** /CHG key.

(00 is blinking)

262. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

023 11BFE1

E1 : Adjusted value

263. Press the **III** key.

(11BF is blinking)

264. Press the VOLUME + key twice to change the blinking portion to 11C1.

Remote commander LCD display

D23 11C100

00 : Adjusted value

265. Press the **■** /CHG key.

(00 is blinking)

266. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11C180

80 : Adjusted value

267. Press the **III** key.

(11C1 is blinking)

268. Press the VOLUME + key once to change the blinking portion to 11C2.

Remote commander LCD display

D23 11C200

00 : Adjusted value

269. Press the **I**/CHG key.

(00 is blinking)

270. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes C4.

Remote commander LCD display

023 11C2C4

C4 : Adjusted value

271. Press the **III** key.

(11C2 is blinking)

272. Press the VOLUME + key once to change the blinking portion to 11C3.

Remote commander LCD display

□23 11C300

00 : Adjusted value

273. Press the **I**/CHG key.

(00 is blinking)

274. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 11C3E5

E5 : Adjusted value

275. Press the key. (11C3 is blinking)

276. Press the VOLUME + key once to change the blinking portion to 11C4.

Remote commander LCD display

D23 11C400

00 : Adjusted value

277. Press the **I** /CHG key

(00 is blinking)

278. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

D23 11C40A

0A : Adjusted value

279. Press the [1] key.

(11C4 is blinking)

280. Press the VOLUME + key three times to change the blinking portion to 11C7.

Remote commander LCD display

□23 11C700

00 : Adjusted value

281. Press the **■** /CHG key.

(00 is blinking)

282. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes EA.

Remote commander LCD display

023 11C7EA

EA : Adjusted value

283. Press the [1] key.

(11C7 is blinking)

284. Press the VOLUME + key once to change the blinking portion to 11C8.

Remote commander LCD display

D23 11C800

00 : Adjusted value

285. Press the **I** /CHG key.

(00 is blinking)

286. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B8.

Remote commander LCD display

02311C8B8

B8 : Adjusted value

287. Press the **t** key.

(11C8 is blinking)

288. Press the VOLUME + key once to change the blinking portion to 11C9.

Remote commander LCD display

023 11C900

00 : Adjusted value

289. Press the **I** /CHG key.

(00 is blinking)

290. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 85.

Remote commander LCD display

D23 11C985

85 : Adjusted value

291. Press the [1] key.

(11C9 is blinking)

292. Press the VOLUME + key once to change the blinking portion to 11CA.

Remote commander LCD display

023 11CA00

00 : Adjusted value

293. Press the **■** /CHG key.

(00 is blinking)

294. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes DB.

Remote commander LCD display

02311CADB

DB : Adjusted value

295. Press the **III** key.

(11CA is blinking)

296. Press the VOLUME + key once to change the blinking portion to 11CB.

Remote commander LCD display

023 11CB00

00 : Adjusted value

297. Press the **I**/CHG key.

(00 is blinking)

298. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

023 11CBE1

E1 : Adjusted value

299. Press the [1] key.

(11CB is blinking)

300. Press the VOLUME + key once to change the blinking portion to 11CC.

Remote commander LCD display

023 11CC00

00 : Adjusted value

301. Press the **I**/CHG key.

(00 is blinking)

302. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 04.

Remote commander LCD display

023 11CC04

04 : Adjusted value

303. Press the key. (11CC is blinking)

304. Press the VOLUME + key twice to change the blinking portion to 11CE.

Remote commander LCD display

023 11CE00

00 : Adjusted value

305. Press the **■** /CHG key.

(00 is blinking)

306. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 58.

Remote commander LCD display

023 11CE58

58 : Adjusted value

307. Press the 🔢 key.

(11CE is blinking)

308. Press the VOLUME + key once to change the blinking portion to 11CF.

Remote commander LCD display

□23 11CF00

00 : Adjusted value

309. Press the **■** /CHG key.

(00 is blinking)

310. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

02311CFE3

E3: Adjusted value

311. Press the **[**] key.

(11CF is blinking)

312. Press the VOLUME + key once to change the blinking portion to 11D0.

Remote commander LCD display

D23 11D000

00 : Adjusted value

313. Press the **A**/CHG key.

(00 is blinking)

314. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 07.

Remote commander LCD display

023 110007

07 : Adjusted value

315. Press the \blacksquare key.

(11D0 is blinking)

316. Press the VOLUME + key three times to change the blinking portion to 11D3.

Remote commander LCD display

□23 11D300

00 : Adjusted value

317. Press the **/CHG** key.

(00 is blinking)

318. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes DA.

Remote commander LCD display

023 11D3DA

DA: Adjusted value

319. Press the 🔢 key.

(11D3 is blinking)

320. Press the VOLUME + key twice to change the blinking portion to 11D5.

Remote commander LCD display

D23 11D500

00 : Adjusted value

321. Press the **■** /CHG key.

(00 is blinking)

322. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

D23 11D580

80 : Adjusted value

323. Press the **III** key.

(11D5 is blinking)

324. Press the VOLUME + key once to change the blinking portion to 11D6.

Remote commander LCD display

D23 11D600

D6: Adjusted value

325. Press the **A**/CHG key.

(00 is blinking)

326. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes D4.

Remote commander LCD display

023 11D6D4

D4 : Adjusted value

327. Press the **III** key.

(11D6 is blinking)

328. Press the VOLUME + key once to change the blinking portion to 11D7.

Remote commander LCD display

□23 11D700

00 : Adjusted value

329. Press the /CHG key.

(00 is blinking)

330. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 11D7E5

E5 : Adjusted value

331. Press the **■** key. (11D7 is blinking)

332. Press the VOLUME + key once to change the blinking portion to 11D8.

Remote commander LCD display

D23 11D800

00 : Adjusted value

333. Press the **■** /CHG key.

(00 is blinking)

334. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 01.

Remote commander LCD display

11D801

01 : Adjusted value

335. Press the **III** key.

(11D8 is blinking)

336. Press the VOLUME + key once to change the blinking portion to 11D9.

Remote commander LCD display

023 11D900

00 : Adjusted value

337. Press the **■** /CHG key.

(00 is blinking)

338. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes A0.

Remote commander LCD display

023 11D9A0

A0 : Adjusted value

339. Press the **III** key.

(11D9 is blinking)

340. Press the VOLUME + key once to change the blinking portion to 11DA.

Remote commander LCD display

023 11DA00

00 : Adjusted value

341. Press the **■** /CHG key.

(00 is blinking)

342. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 11DAB0

B0 : Adjusted value

343. Press the key.

(11DA is blinking)

344. Press the VOLUME + key once to change the blinking portion to 11DB.

Remote commander LCD display

023 11DB00

00 : Adjusted value

345. Press the **■** /CHG key.

(00 is blinking)

346. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 11DBE3

E3: Adjusted value

347. Press the **■** key.

(11DB is blinking)

348. Press the VOLUME + key once to change the blinking portion to 11DC.

Remote commander LCD display

@23 11DC00

00 : Adjusted value

349. Press the **■** /CHG key.

(00 is blinking)

350. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

023 11DC0A

0A : Adjusted value

351. Press the **III** key.

(11DC is blinking)

352. Press the VOLUME + key once to change the blinking portion to 11DD.

Remote commander LCD display

|*□23* 11DD00

00 : Adjusted value

353. Press the **■** /CHG key.

(00 is blinking)

354. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11DD80

80 : Adjusted value

355. Press the **III** key.

(11DD is blinking)

356. Press the VOLUME + key once to change the blinking portion to 11DE.

Remote commander LCD display

023 11DE00

00 : Adjusted value

357. Press the /CHG key.

(00 is blinking)

358. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 88.

Remote commander LCD display

023 11DE88

88 : Adjusted value

359. Press the **■** key. (11DE is blinking)

360. Press the VOLUME + key once to change the blinking portion to 11DF.

Remote commander LCD display

023 11DF00

00 : Adjusted value

361. Press the **■** /CHG key.

(00 is blinking)

362. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

023 11DFE1

E1 : Adjusted value

363. Press the **III** key.

(11DF is blinking)

364. Press the VOLUME + key once to change the blinking portion to 11E0.

Remote commander LCD display

□23 11E000

00 : Adjusted value

365. Press the **■** /CHG key.

(00 is blinking)

366. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 02.

Remote commander LCD display

023 11E002

02 : Adjusted value

367. Press the **III** key.

(11E0 is blinking)

368. Press the VOLUME + key once to change the blinking portion to 11E1.

Remote commander LCD display

D23 11E100

00 : Adjusted value

369. Press the **■** /CHG key.

(00 is blinking)

370. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes A0.

Remote commander LCD display

023 11E1A0

A0 : Adjusted value

371. Press the 🔢 key.

(11E1 is blinking)

372. Press the VOLUME + key once to change the blinking portion to 11E2.

Remote commander LCD display

□23 11E200

00 : Adjusted value

373. Press the **■** /CHG key.

(00 is blinking)

374. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

□23 11E2B0

B0 : Adjusted value

375. Press the 🔢 key.

(11E2 is blinking)

376. Press the VOLUME + key once to change the blinking portion to 11E3.

Remote commander LCD display

023 11E300

00 : Adjusted value

377. Press the **■** /CHG key.

(00 is blinking)

378. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 11E3E3

E3 : Adjusted value

379. Press the [1] key.

(11E3 is blinking)

380. Press the VOLUME + key once to change the blinking portion to 11E4.

Remote commander LCD display

D23 11E400

00 : Adjusted value

381. Press the **I**/CHG key.

(00 is blinking)

382. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0A.

Remote commander LCD display

023 11E40A

0A : Adjusted value

383. Press the [1] key.

(11EA is blinking)

384. Press the VOLUME + key once to change the blinking portion to 11E5.

Remote commander LCD display

023 11E500

E5 : Adjusted value

385. Press the /CHG key.

(00 is blinking)

386. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11E580

80 : Adjusted value

387. Press the **M** key. (11E5 is blinking)

388. Press the VOLUME + key once to change the blinking portion to 11E6.

Remote commander LCD display

D23 11E600

00 : Adjusted value

389. Press the **■** /CHG key.

(00 is blinking)

390. Adjust with the VOLUME+ key (adjusted value up) or VOLUME- key (adjusted value down) so that the adjusted value becomes 88.

Remote commander LCD display

023 11E688

88 : Adjusted value

391. Press the [1] key.

(11E6 is blinking)

392. Press the VOLUME + key once to change the blinking portion to 11E7.

Remote commander LCD display

D23 11E700

00 : Adjusted value

393. Press the **■** /CHG key.

(00 is blinking)

394. Adjust with the VOLUME+ key (adjusted value up) or VOLUME- key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

D23 11E7E1

E1: Adjusted value

395. Press the **III** key.

(11E7 is blinking)

396. Press the VOLUME + key twice to change the blinking portion to 11E9.

Remote commander LCD display

023 11E900

00 : Adjusted value

397. Press the ___/CHG key.

(00 is blinking)

398. Adjust with the VOLUME+ key (adjusted value up) or VOLUME- key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11E980

80 : Adjusted value

399. Press the 🔢 key.

(11E1 is blinking)

400. Press the VOLUME + key once to change the blinking portion to 11EA.

Remote commander LCD display

D23 11EA00

00 : Adjusted value

401. Press the /CHG key. (00 is blinking)

402. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes C4.

Remote commander LCD display

023 11EAC4

C4 : Adjusted value

403. Press the [1] key.

(11EA is blinking)

404. Press the VOLUME + key once to change the blinking portion to 11EB.

Remote commander LCD display

023 11EB00

00 : Adjusted value

405. Press the **■** /CHG key.

(00 is blinking)

406. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E5.

Remote commander LCD display

023 11EBE5

E5 : Adjusted value

407. Press the **III** key

(11EB is blinking)

408. Press the VOLUME + key twice to change the blinking portion to 11ED.

Remote commander LCD display

023 11ED00

00 : Adjusted value

409. Press the **■** /CHG key.

(00 is blinking)

410. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 80.

Remote commander LCD display

023 11ED80

80 : Adjusted value

411. Press the **III** key.

(11ED is blinking)

412. Press the VOLUME + key once to change the blinking portion to 11EE.

Remote commander LCD display

023 11EE00

00 : Adjusted value

413. Press the **■** /CHG key.

(00 is blinking)

414. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 11EEB0

B0 : Adjusted value

415. Press the **[**] key.

(11EE is blinking)

416. Press the VOLUME + key once to change the blinking portion to 11EF.

Remote commander LCD display

023 11EF00

00 : Adjusted value

417. Press the **/CHG** key.

(00 is blinking)

418. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E3.

Remote commander LCD display

023 11EFE3

E3 : Adjusted value

419. Press the 🔢 key.

(11EF is blinking)

420. Press the VOLUME + key once to change the blinking portion to 11F0.

Remote commander LCD display

D23 11F000

00 : Adjusted value

421. Press the **■** /CHG key.

(00 is blinking)

422. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B8.

Remote commander LCD display

П2∃ 11F0B8

B8 : Adjusted value

423. Press the 🚺 key.

(11F0 is blinking)

424. Press the VOLUME + key once to change the blinking portion to 11F1.

Remote commander LCD display

023 11F100

00 : Adjusted value

425. Press the **■** /CHG key.

(00 is blinking)

426. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 85.

Remote commander LCD display

023 11F185

85 : Adjusted value

427. Press the **III** key.

(11F1 is blinking)

428. Press the VOLUME + key once to change the blinking portion to 11F2.

Remote commander LCD display

□23 11F200

00 : Adjusted value

429. Press the /CHG key. (00 is blinking)

430. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes CB.

Remote commander LCD display

023 11F2CB

CB : Adjusted value

431. Press the week

(11F2 is blinking)

432. Press the VOLUME + key once to change the blinking portion to 11F3.

Remote commander LCD display

023 11F300

00 : Adjusted value

433. Press the **■** /CHG key.

(00 is blinking)

434. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

023 11F3E1

E1 : Adjusted value

435. Press the **W** key.

(11F3 is blinking)

436. Press the VOLUME + key twice to change the blinking portion to 11F5.

Remote commander LCD display

□23 11F500

00 : Adjusted value

437. Press the **■** /CHG key.

(00 is blinking)

438. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 5F.

Remote commander LCD display

023 11F55F

5F : Adjusted value

439. Press the **III** key.

(11F5 is blinking)

440. Press the VOLUME + key once to change the blinking portion to 11F6.

Remote commander LCD display

023 11F600

00 : Adjusted value

441. Press the **■** /CHG key.

(00 is blinking)

442. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes BD.

Remote commander LCD display

023 11F6BD

BD : Adjusted value

443. Press the **■** key. (11F6 is blinking)

444. Press the VOLUME + key once to change the blinking portion to 11F7.

Remote commander LCD display

D23 11F700

00 : Adjusted value

445. Press the **■** /CHG key.

(00 is blinking)

446. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E8.

Remote commander LCD display

023 11F7E8

E8 : Adjusted value

447. Press the **III** key.

(11F7 is blinking)

448. Press the VOLUME + key once to change the blinking portion to 11F8.

Remote commander LCD display

D23 11F800

00 : Adjusted value

449. Press the **■** /CHG key.

(00 is blinking)

450. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 08.

Remote commander LCD display

□23 11F808

08 : Adjusted value

451. Press the **[III]** key.

(11FB is blinking)

452. Press the VOLUME + key once to change the blinking portion to 11F9.

Remote commander LCD display

023 11F900

00 : Adjusted value

453. Press the **■** /CHG key.

(00 is blinking)

454. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E0.

Remote commander LCD display

023 11F9E0

E0 : Adjusted value

455. Press the **■** key.

(11F9 is blinking)

456. Press the VOLUME + key once to change the blinking portion to 11FA.

Remote commander LCD display

023 11FA00

00 : Adjusted value

457. Press the <u>I /CHG</u> key. (00 is blinking)

458. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 8E.

Remote commander LCD display

02311FA8E

8E : Adjusted value

459. Press the [1] key.

(11FA is blinking)

460. Press the VOLUME + key once to change the blinking portion to 11FB.

Remote commander LCD display

023 11FB00

00 : Adjusted value

461. Press the **■** /CHG key.

(00 is blinking)

462. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E2.

Remote commander LCD display

023 11FBE2

E2: Adjusted value

463. Press the **■** key

(11FB is blinking)

464. Press the VOLUME + key once to change the blinking portion to 11FC.

Remote commander LCD display

D23 11FC00

00 : Adjusted value

465. Press the **■** /CHG key.

(00 is blinking)

466. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 0E.

Remote commander LCD display

023 11FC0E

0E : Adjusted value

467. Press the **III** key.

(11FC is blinking)

468. Press the VOLUME + key once to change the blinking portion to 11FD.

Remote commander LCD display

023 11FD00

00 : Adjusted value

469. Press the **■** /CHG key.

(00 is blinking)

470. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes F0.

Remote commander LCD display

023 11FDF0

F0 : Adjusted value

471. Press the [11] key.

(11FD is blinking)

472. Press the VOLUME + key once to change the blinking portion to 11FE.

Remote commander LCD display

023 11FE00

00 : Adjusted value

473. Press the **■** /CHG key.

(00 is blinking)

474. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes B0.

Remote commander LCD display

023 11FEB0

B0 : Adjusted value

475. Press the 🔢 key.

(11FE is blinking)

476. Press the VOLUME + key once to change the blinking portion to 11FF.

Remote commander LCD display

D23 11FF00

00 : Adjusted value

477. Press the **■** /CHG key.

(00 is blinking)

478. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes E1.

Remote commander LCD display

023 11FFE1

E1: Adjusted value

479. Press the 🔢 key.

(11FF is blinking)

480. Press the VOLUME + key once to change the blinking portion to 1200.

Remote commander LCD display

023 120000

00 : Adjusted value

481. Press the **■** /CHG key.

(00 is blinking)

482. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 78.

Remote commander LCD display

023 120078

78 : Adjusted value

483. Press the **III** key.

(1200 is blinking)

484. Press the VOLUME + key once to change the blinking portion to 1201.

Remote commander LCD display

023 120100

00 : Adjusted value

485. Press the **■** /CHG key.

(00 is blinking)

486. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 01.

Remote commander LCD display

023 120101

01 : Adjusted value

487. Press the [1] key.

(1201 is blinking)

488. Press the VOLUME + key twice to change the blinking portion to 1203.

Remote commander LCD display

023 120300

00 : Adjusted value

489. Press the **■** /CHG key.

(00 is blinking)

490. Adjust with the VOLUME + key (adjusted value up) or VOLUME - key (adjusted value down) so that the adjusted value becomes 02.

Remote commander LCD display

023 120302

02 : Adjusted value

491. Press the [11] key.

(1203 is blinking)

492. Press the DISPLAY key on the remote commander for several seconds (about 3 seconds) to exit the patch data write mode and display as below.

Remote commander LCD display

023 Patch09

09 : Adjusted value

493. Press the [1] key to write the modified data.

494. The modified data writing is over, if the adjusted value changes to DD.

Remote commander LCD display

023 ***SDD

DD: *Adjusted value* 495. Turn the power off.

SECTION 6 DIAGRAMS

6-1. NOTE FOR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- : parts extracted from the component side. parts extracted from the conductor side.
- : Pattern from the side which enables seeing.

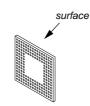
(The other layers' patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated. Parts on the parts face side seen from Parts face side: (Component Side) the parts face are indicated.

- MAIN board is four-layer printed board. However, the patterns of layers 2 and 3 have not been included in this diagrams.
- · Replacement of IC801 used in this set requires a special tool.
- Lead Layouts





Lead layout of conventional IC

CSP (chip size package)

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^{1}/_{4}$ W or less unless otherwise specified.
- % : indicates role : panel designation. : indicates tolerance.

Note:

The components identified by mark rianlge rialine with mark \triangle are critical for safety. Replace only with part number specified.

- : B+ Line.
- Total current is measured with MD installed.
- Power voltage is dc 3 V and fed with regulated dc power supply from DC IN 3 V jack (J601).
- Voltages and waveforms are dc with respect to ground in playback mode.

no mark : PLAYBACK

): REC

: Impossible to measure

- Voltages are taken with a VOM (Input impedance 10 $M\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- · Circled numbers refer to waveforms.
- · Signal path.

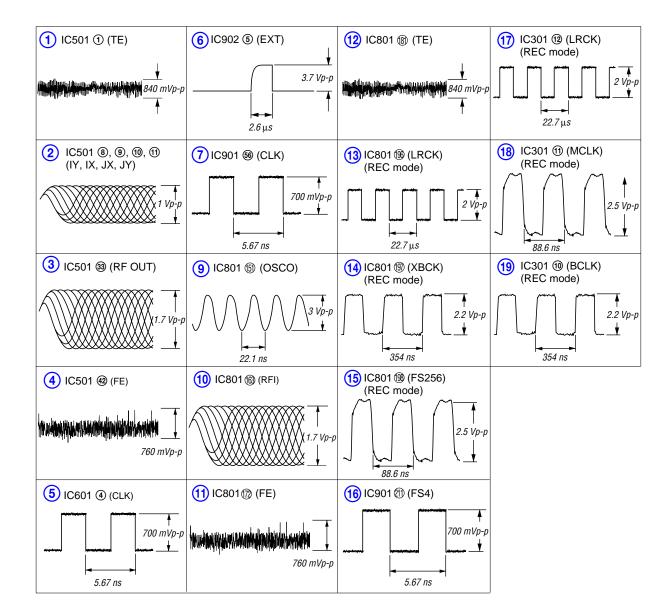
 \sum **PLAYBACK**

REC (ANALOG IN)

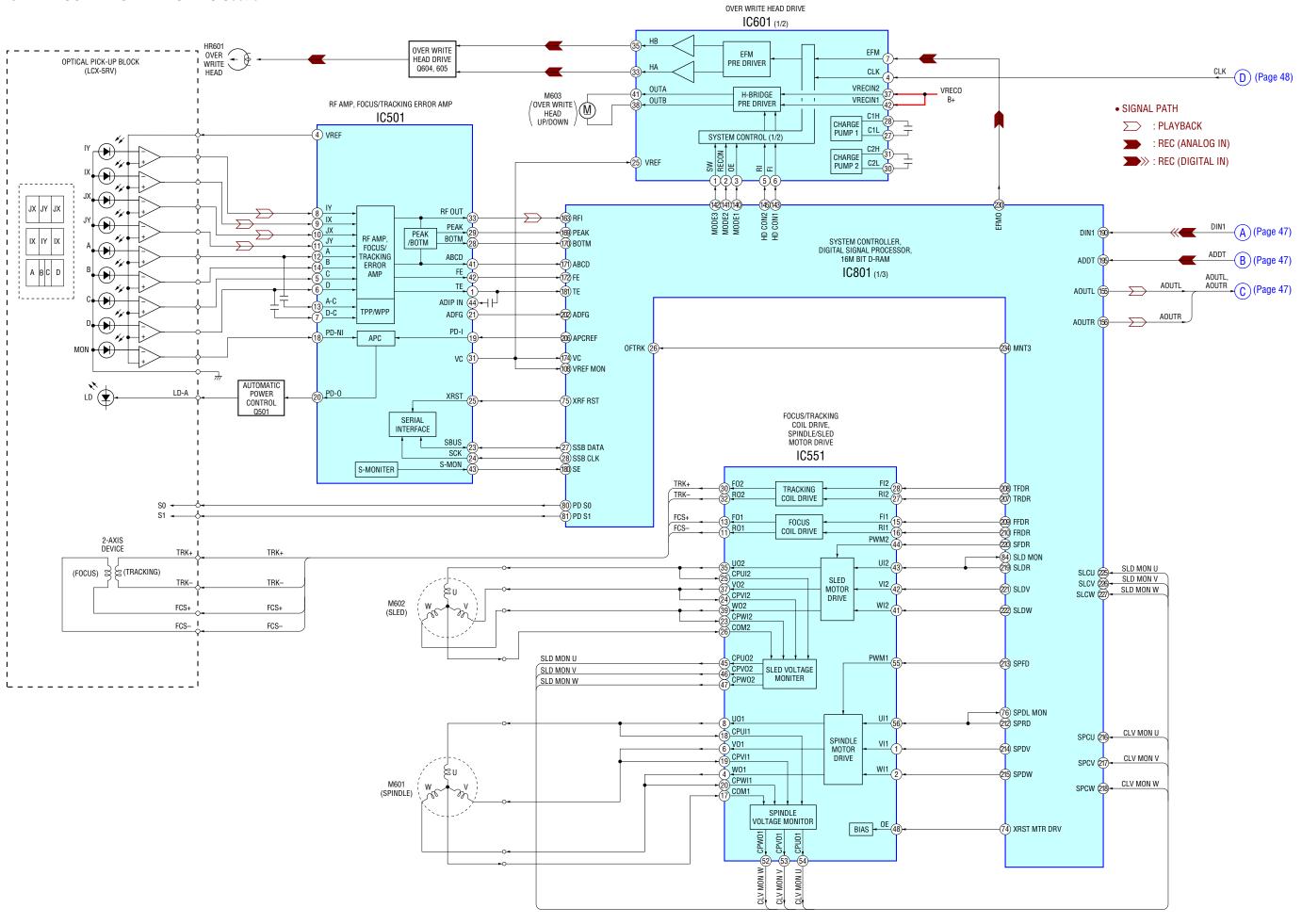
: REC (DIGITAL IN)

- Replacement of IC801 used in this set requires a special
- The voltage and waveform of CSP (chip size package) cannot be measured, because its lead layout is different form that of conventional IC.

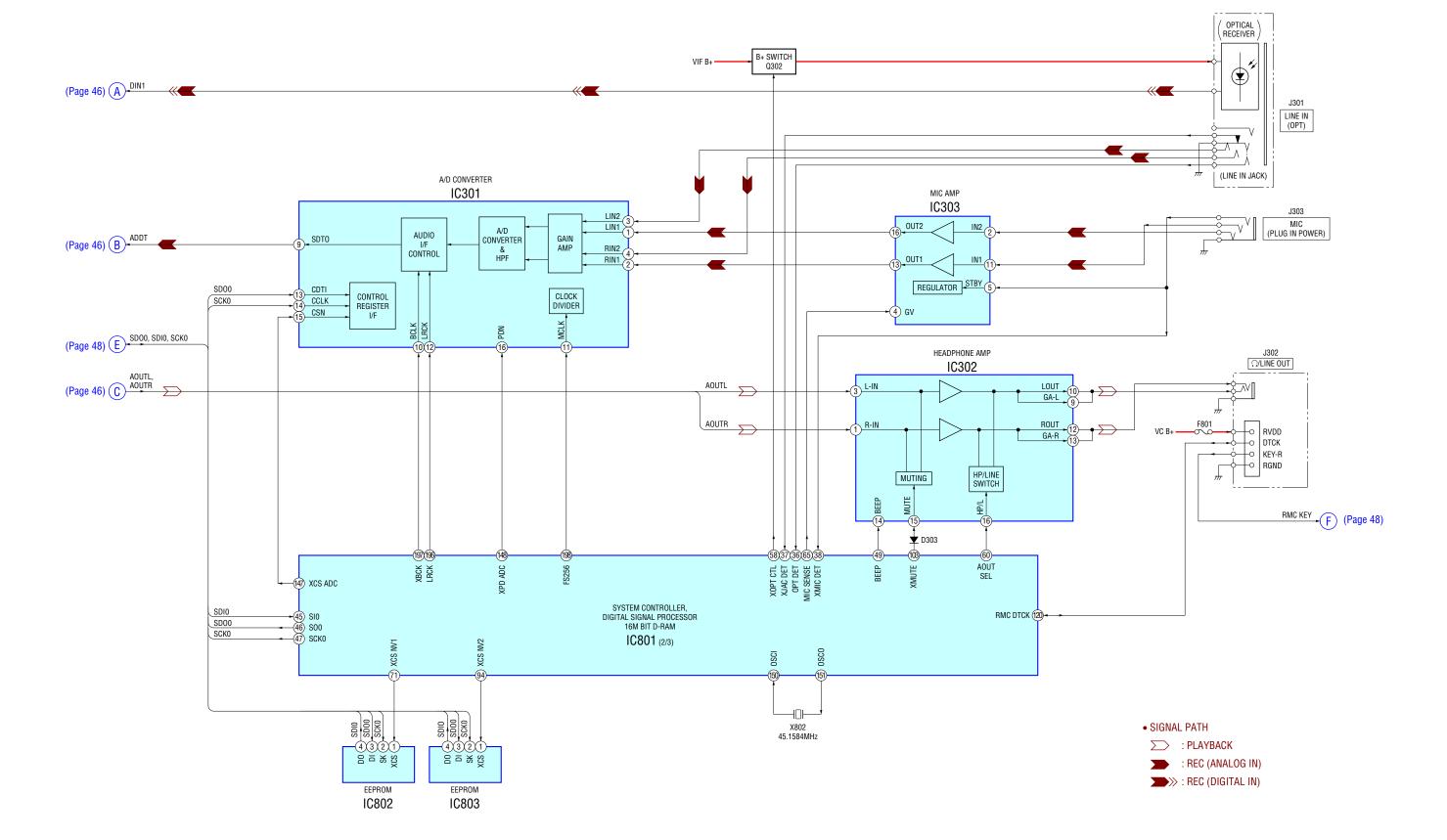
Waveforms



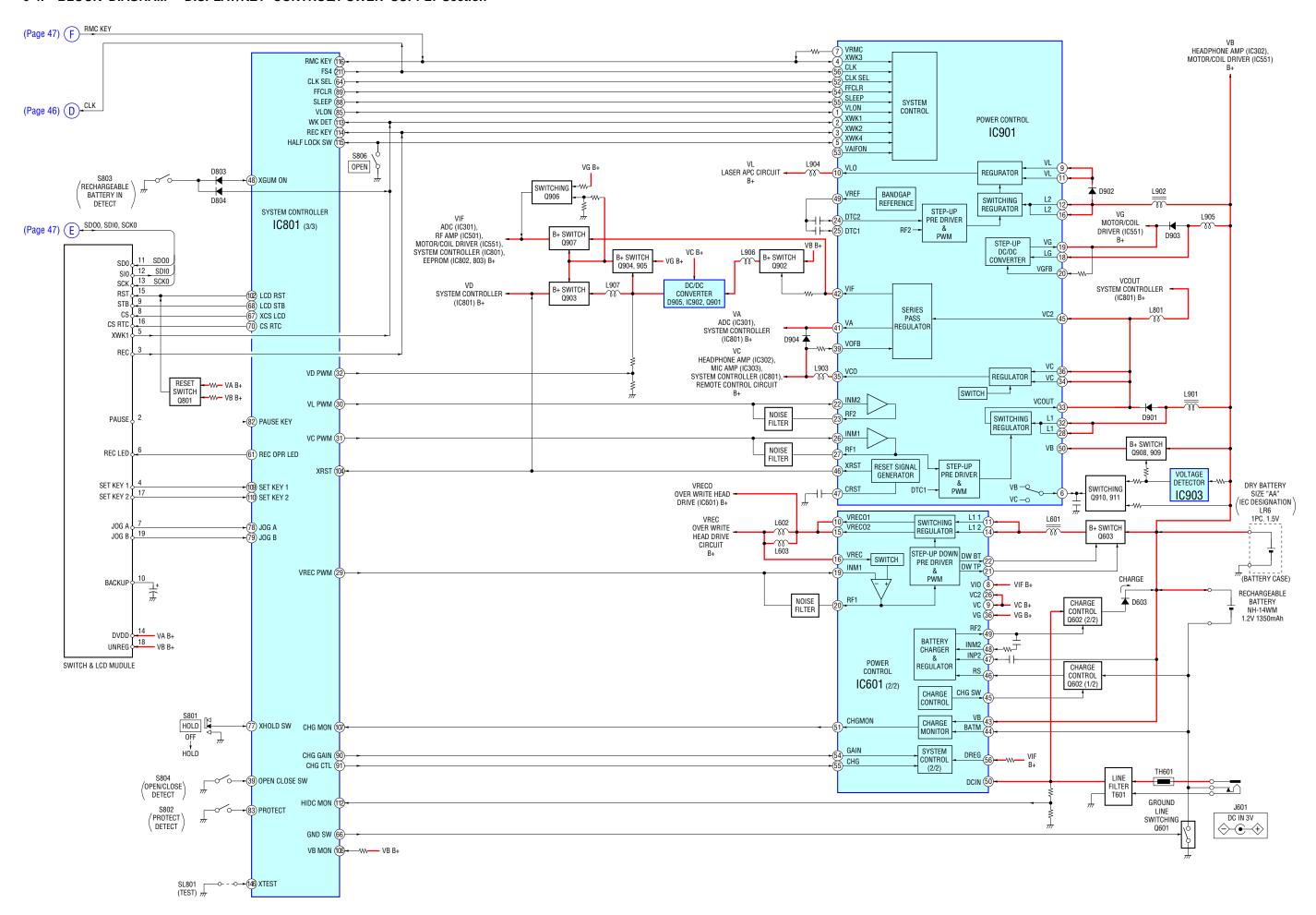
6-2. BLOCK DIAGRAM - SERVO Section -



6-3. BLOCK DIAGRAM - AUDIO Section -



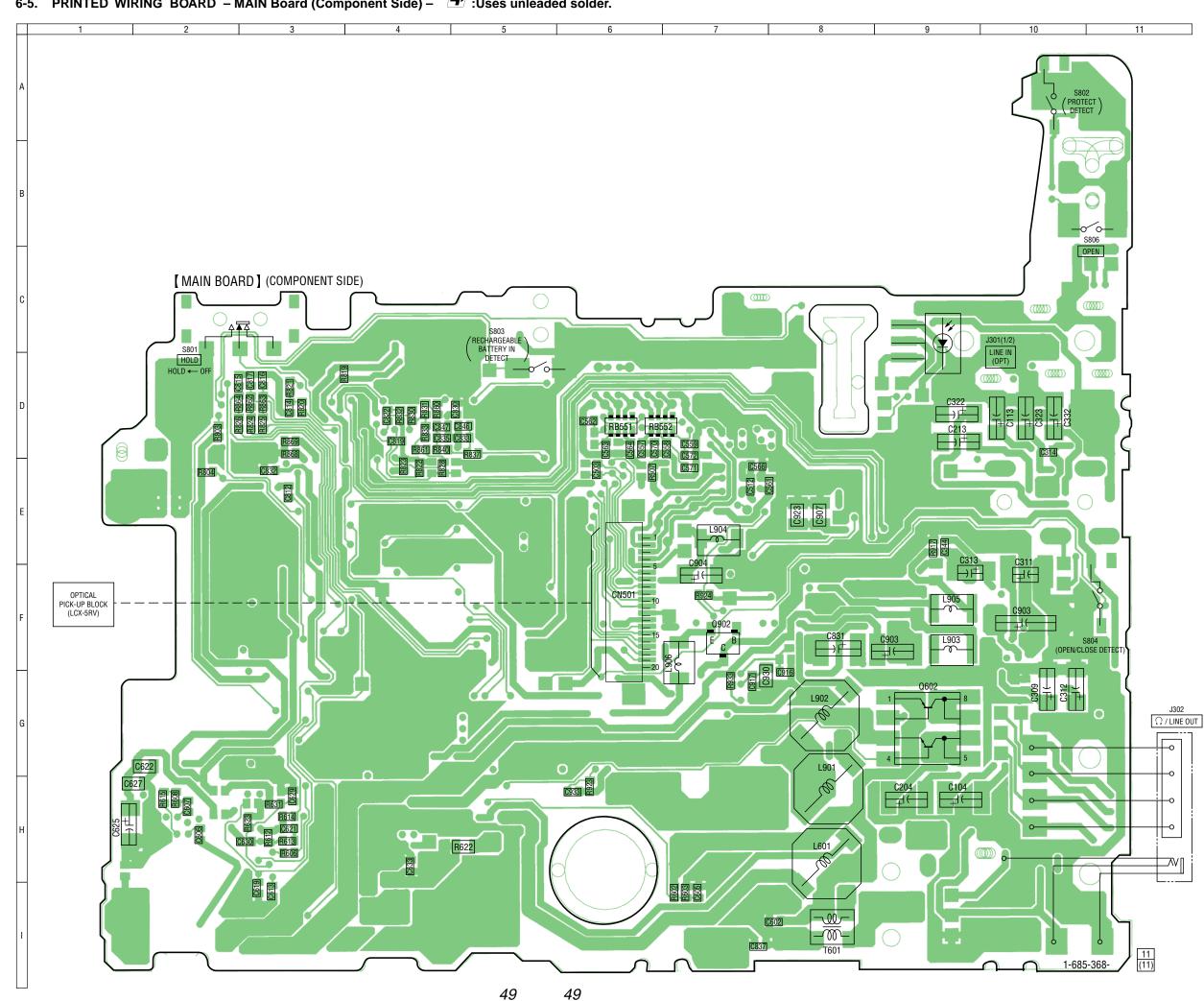
6-4. BLOCK DIAGRAM - DISPLAY/KEY CONTROL/POWER SUPPLY Section -



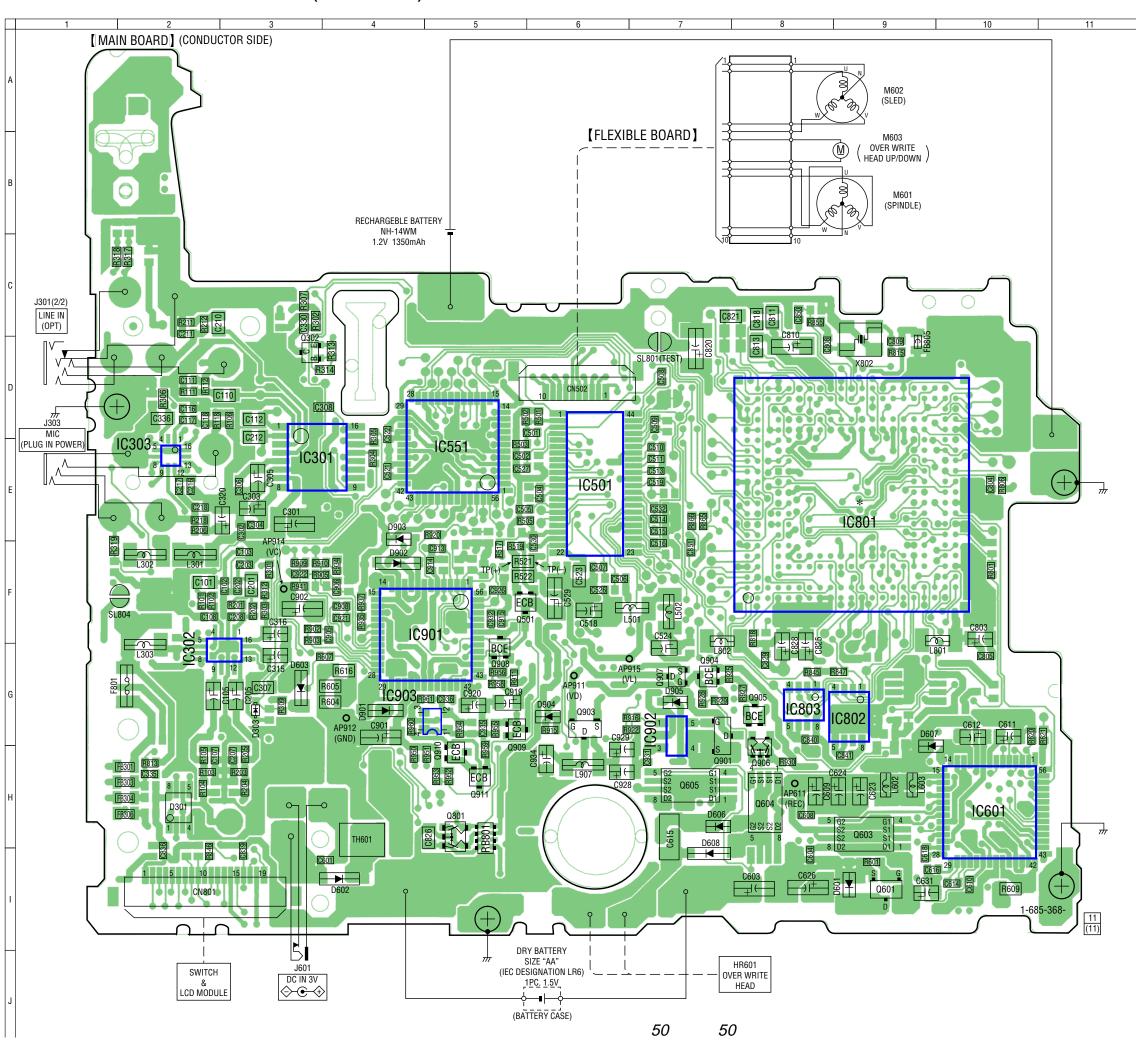
6-5. PRINTED WIRING BOARD – MAIN Board (Component Side) – 4 :Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
Q602	G-9
Q902	F-7

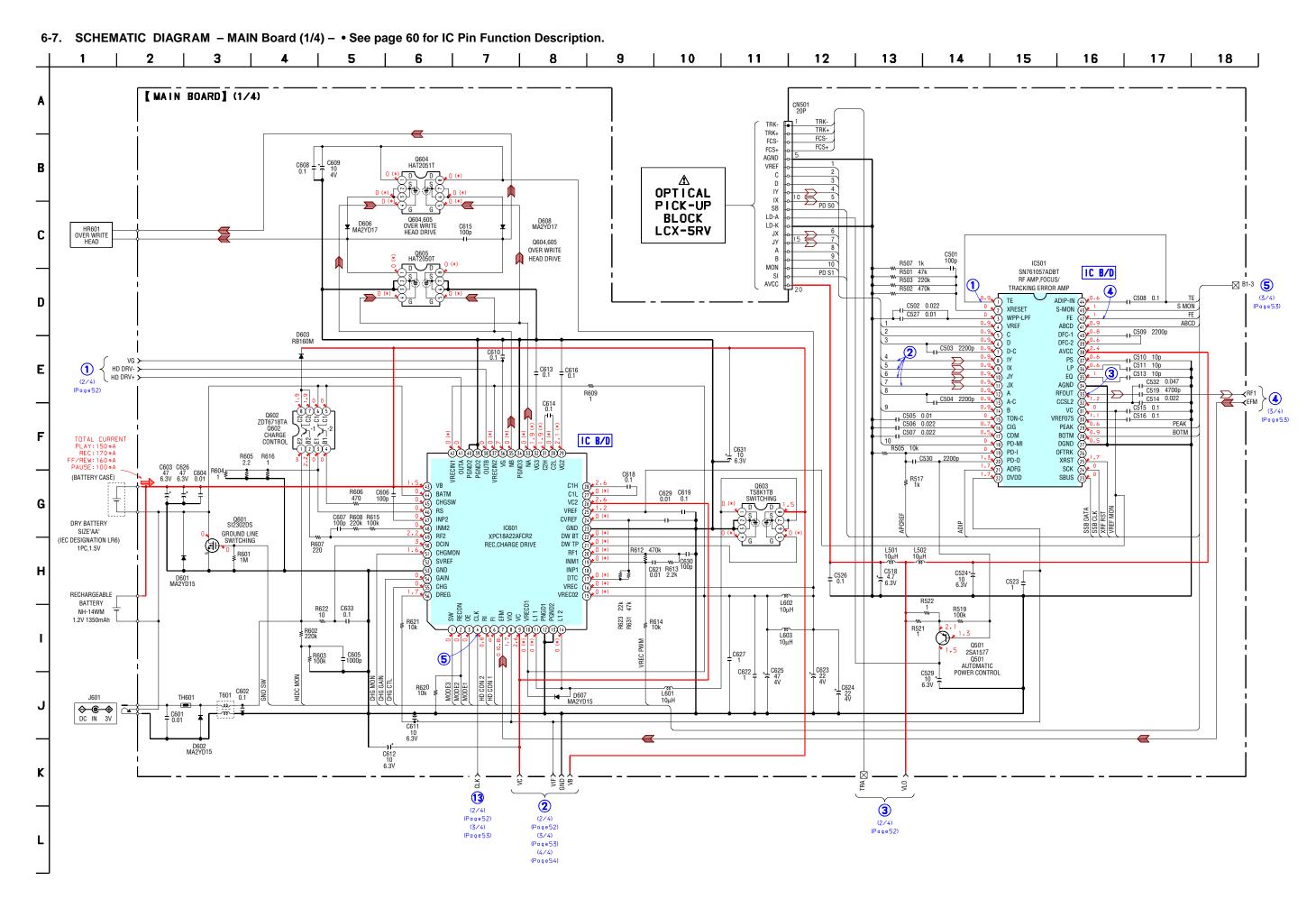


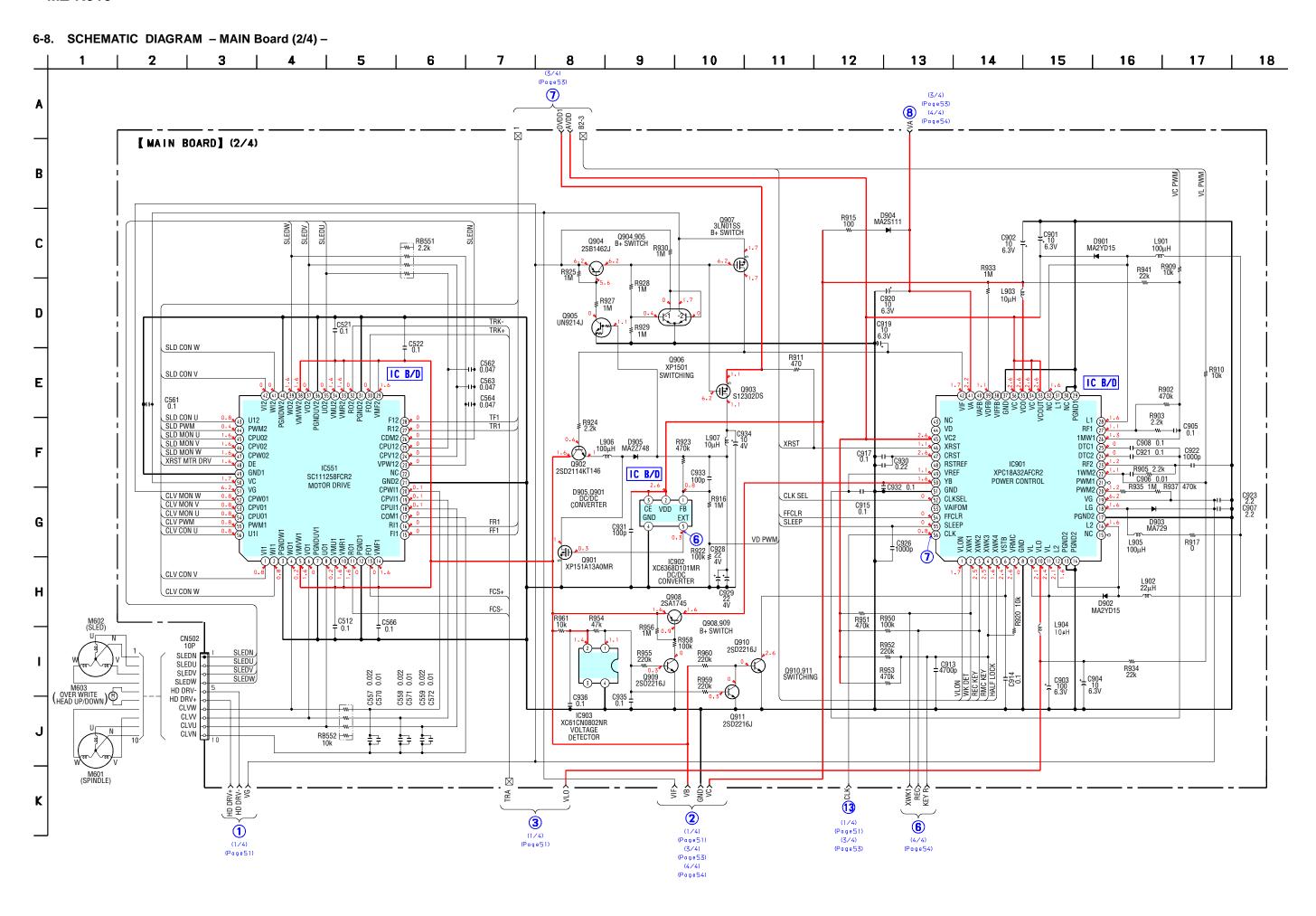
6-6. PRINTED WIRING BOARD - MAIN Board (Conductor Side) - ** :Uses unleaded solder.

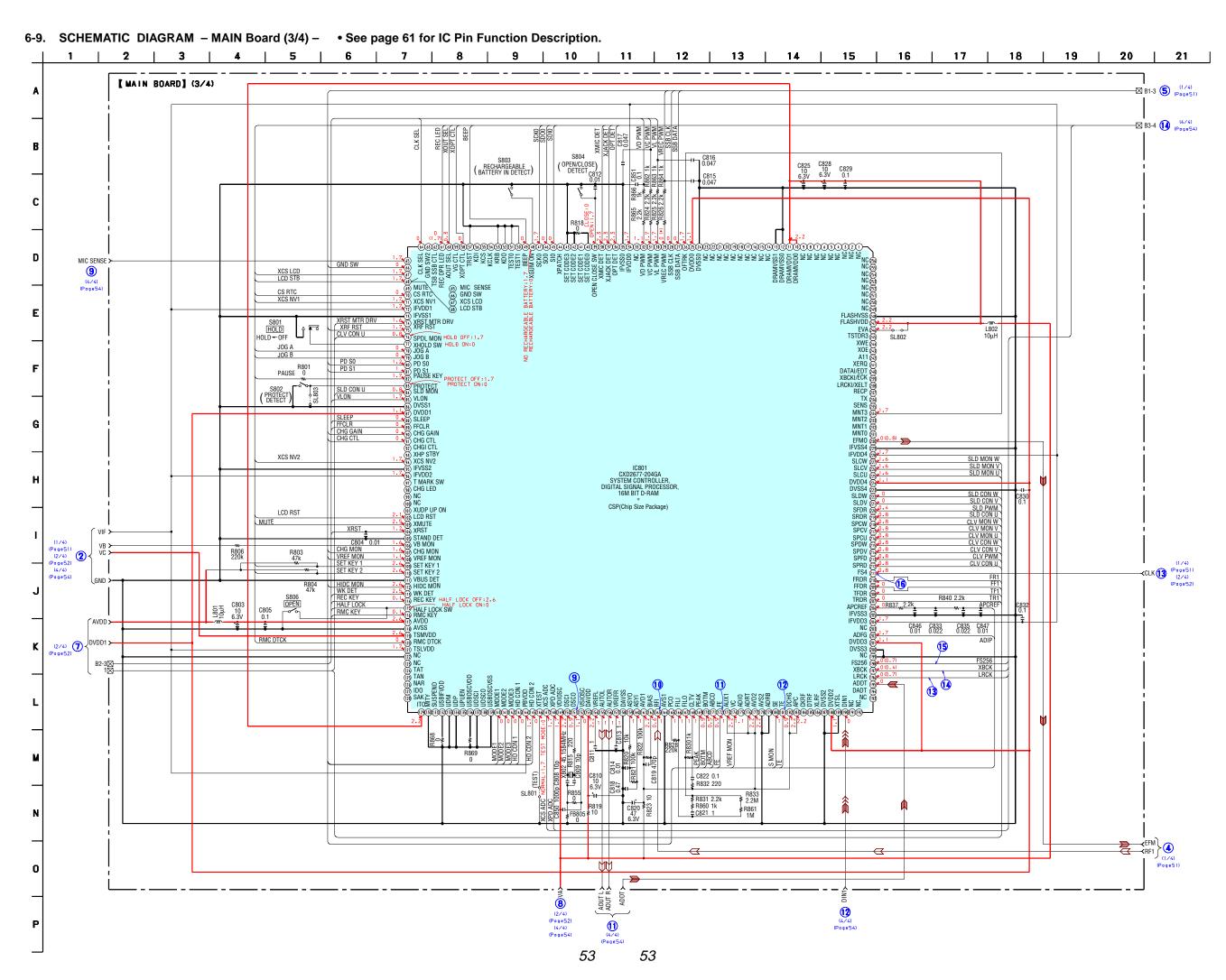


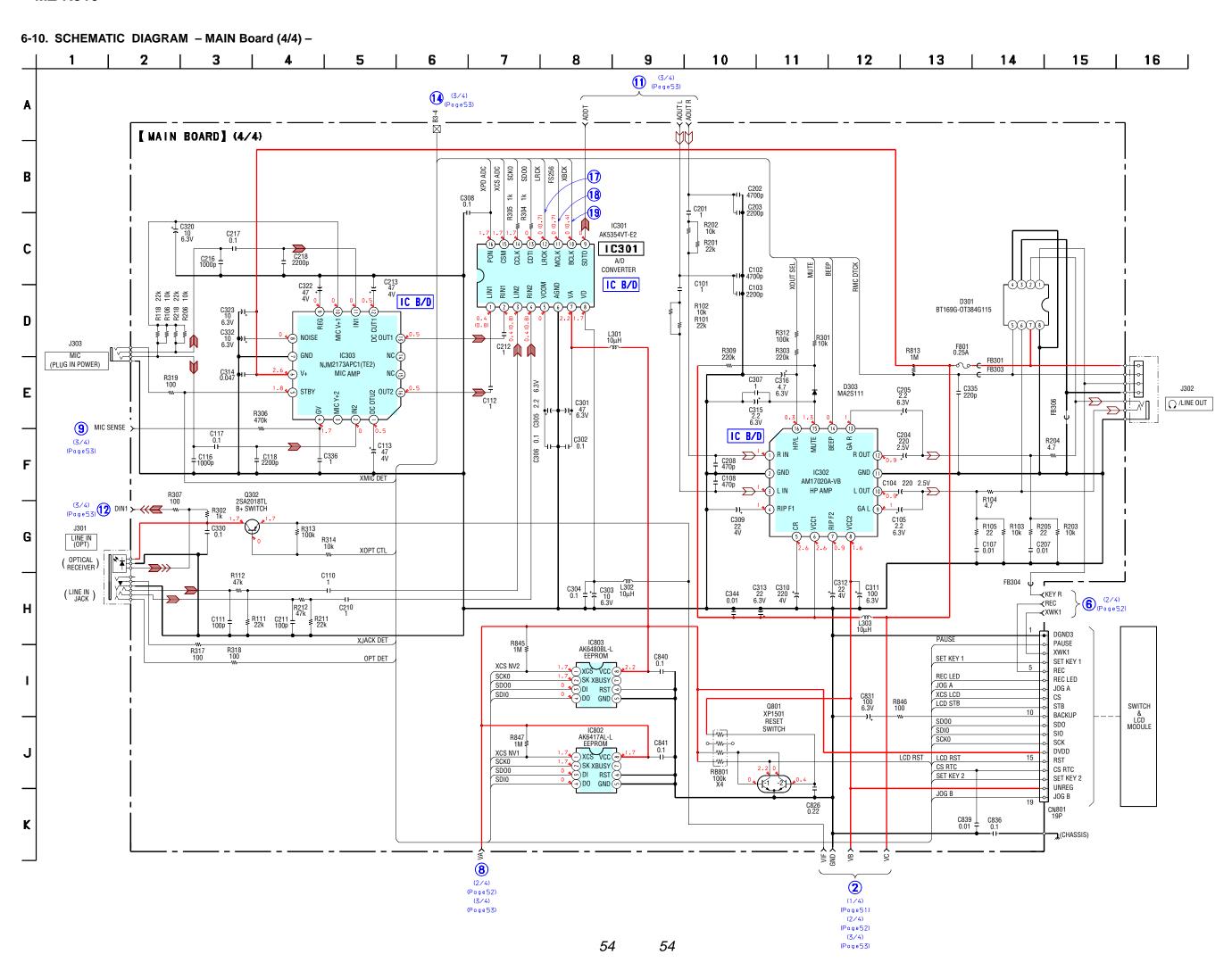
Semiconductor Location

Locatio	n
Ref. No.	Location
D301 D303 D601 D602 D603 D606 D607 D608 D901 D902 D903 D904 D905	H-2 G-3 I-9 I-4 G-3 H-7 G-9 I-7 G-4 F-4 E-4 G-6 G-7
IC301 IC302 IC303 IC501 IC551 IC601 IC801 IC802 IC803 IC901 IC902 IC903	E-3 G-2 E-2 E-6 E-5 H-10 E-9 G-9 G-8 F-4 G-7 G-4
Q302 Q501 Q601 Q603 Q604 Q605 Q801 Q901 Q903 Q904 Q905 Q906 Q907 Q908 Q909 Q910 Q911	D-3 F-5 I-9 H-8 H-7 H-5 G-7 G-6 G-7 G-8 H-8 G-7 G-5 H-5 H-5



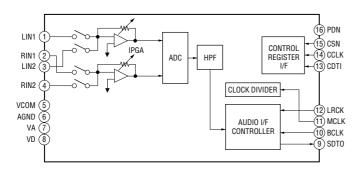




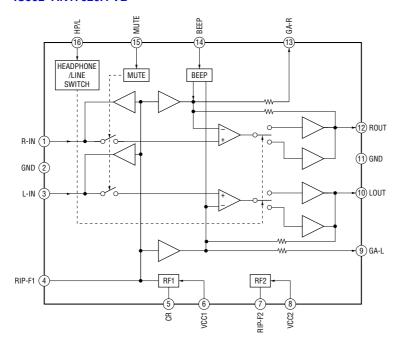


• IC Block Diagrams

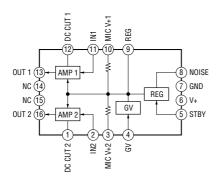
IC301 AK5354VT-E2



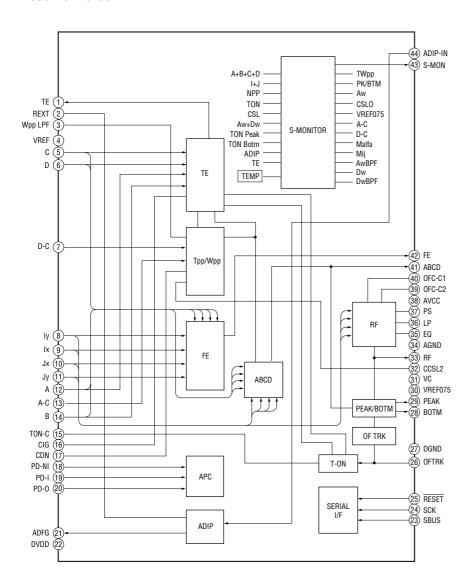
IC302 AN17020A-VB



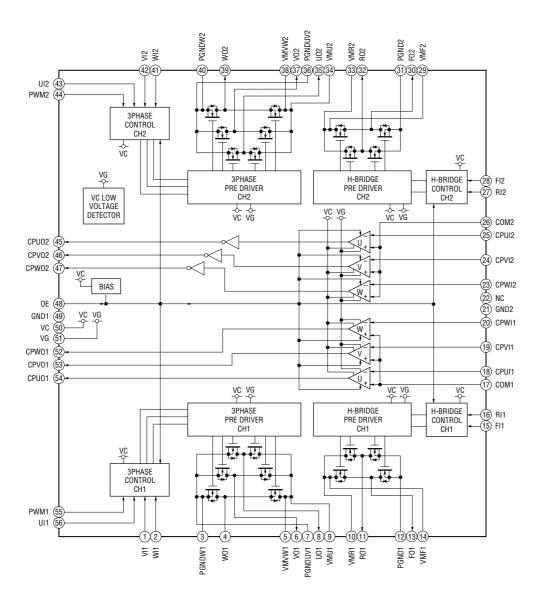
IC303 NJM2173APC1 (TE2)



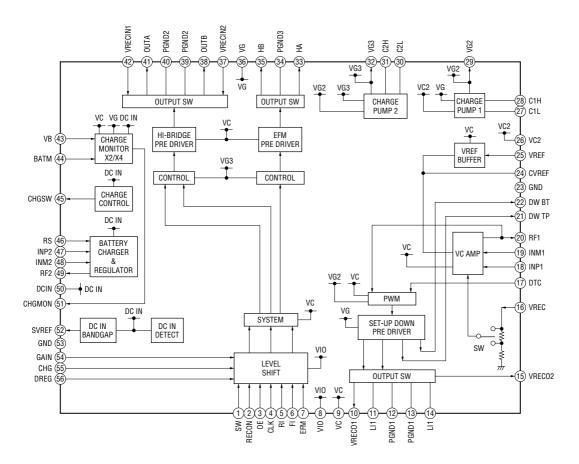
IC501 SN761057ADBT



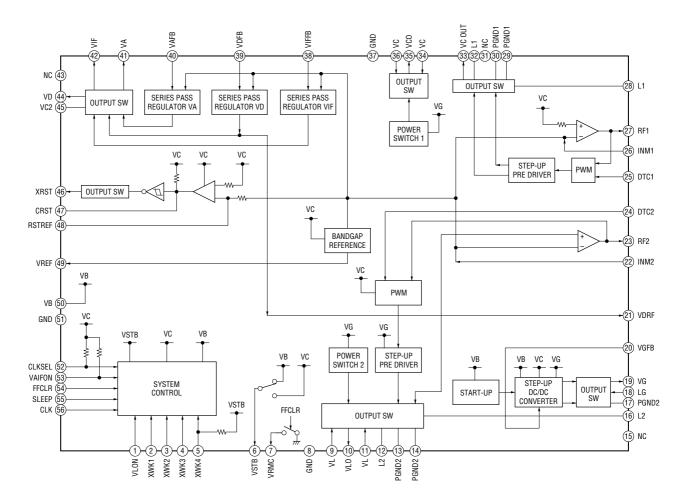
IC551 SC111258FCR2



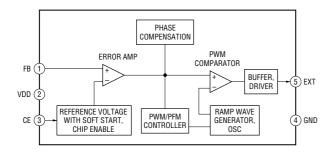
IC601 XPC18A22AFCR2



IC901 XPC18A32AFCR2



IC902 XC6368D101MR



6-11. IC PIN FUNCTION DESCRIPTION

• IC501 SN761057ADBT (RF AMP, FOCUS/TRACKING ERROR AMP)

Pin No.	Pin Name	I/O	Description
1	TE	0	Tracking error signal output to the system controller
2	REXT	_	Connect terminal to the external resistor for the ADIP amplifier control
3	WPP-LPF	_	Connect terminal to the external capacitor for the TPP/WPP low-pass filter
4	VREF	О	Reference voltage output terminal
5	С	I	Signal (C) input from the optical pickup detector
6	D	I	Signal (D) input from the optical pickup detector
7	D-C	I	Signal (D) input from the optical pickup detector (AC input)
8	IY	I	I-V converted RF signal (IY) input from the optical pickup detector
9	IX	I	I-V converted RF signal (IX) input from the optical pickup detector
10	JX	I	I-V converted RF signal (JX) input from the optical pickup detector
11	JY	I	I-V converted RF signal (JY) input from the optical pickup detector
12	A	I	Signal (A) input from the optical pickup detector
13	A-C	I	Signal (A) input from the optical pickup detector (AC input)
14	В	I	Signal (B) input from the optical pickup detector
15	TON-C	_	Connect terminal to the external capacitor for TON hold
16	CIG	_	Connect terminal to the external capacitor for the low-pass filter of NPP divider denominator
17	CDN	_	Connect terminal to the external capacitor for the low-pass filter of CSL divider denominator
18	PD-NI	I	Light amount monitor input terminal (non-invert input)
19	PD-I	I	Reference PWM signal input for the laser automatic power control from the system controller
20	PD-O	О	Light amount monitor output terminal
21	ADFG	О	ADIP duplex FM signal (22.05kHz ± 1kHz) output to the system controller
22	DVDD	_	Power supply terminal (+1.7V) (digital system)
23	SBUS	I/O	SSB serial data input/output with the system controller
24	SCK	I	SSB serial clock signal input from the system controller
25	XRST	I	Reset signal input from the system controller "L": reset
26	OFTRK	I	Off track signal input terminal Not used
27	DGND	_	Ground terminal (digital system)
28	BOTM	О	Bottom hold signal output of the light amount signal (RF/ABCD) to the system controller
29	PEAK	О	Peak hold signal output of the light amount signal (RF/ABCD) to the system controller
30	VREF075	_	Connect terminal to the external capacitor for the internal reference voltage
31	VC	О	Middle point voltage (+1.1V) generation output terminal
32	CCSL2	_	Connect terminal to the external capacitor for the TPP/WPP low-pass filter
33	RF OUT	О	Playback EFM RF signal output to the system controller
34	AGND	_	Ground terminal (analog system)
35 to 37	EQ, LP, PS	_	Connect terminal to the external capacitor for the RF equalizer
38	AVCC	_	Power supply terminal (+2.1V) (analog system)
39, 40	OFC-2, OFC-1	_	Connect terminal to the external capacitor for the RF AC coupling
41	ABCD	О	Light amount signal (ABCD) output to the system controller
42	FE	О	Focus error signal output to the system controller
43	S-MON	О	Servo signal monitor output to the system controller
44	ADIP-IN	I	ADIP duplex FM signal (22.05kHz ± 1kHz) input terminal Not used

• IC801 CXD2677-204GA (SYSTEM CONTROLLER, DIGITAL SIGNAL PROCESSOR, 16M BIT D-RAM)

D:	5: 1:	1/2	B 1.2
Pin No.	Pin Name	1/0	Description
1	NC	0	Load address strobe signal output terminal for D-RAM Not used
2	NC	I	Test input terminal for D-RAM Not used
3 to 7	NC	0	Address signal output terminal for D-RAM Not used
8, 9	NC	I/O	Two-way data bus terminal for D-RAM Not used
10, 11	DRAMVDD0, 1		Power supply terminal (for D-RAM) (+2.2V)
12, 13	DRAMVSS0, 1		Ground terminal (for D-RAM)
14, 15	NC	I/O	Two-way data bus terminal for D-RAM Not used
16 to 19	NC	О	Address signal output terminal for D-RAM Not used
20	NC	О	Column address strobe signal output terminal for D-RAM Not used
21	NC	I	Test input terminal for D-RAM Not used
22, 23	NC	О	Address signal output terminal for D-RAM Not used
24	DVSS0		Ground terminal (for the DSP block)
25	DVDD0		Power supply terminal (for the DSP block) (+1.1V)
26	OFTRK	I	Off track signal input from the DSP monitor (3)
27	SSB DATA	I/O	SSB data input/output with the RF amplifier
28	SSB CLK	О	SSB clock output to the RF amplifier
29	VREC PWM	О	PWM signal output for the Over write head drive power supply voltage control to the power control
30	VL PWM	0	PWM signal output for the laser power supply voltage control to the power control
31	VC PWM	0	PWM signal output for the system power supply voltage control to the power control
32	VD PWM	О	VD power supply voltage control signal output to the DC/DC converter
33	NC		Not used
34	IFVDD0		Power supply terminal (for the microcomputer I/F block) (+1.7V)
35	IFVSS0		Ground terminal (for the microcomputer I/F block)
36	OPT DET	I	DIN plug detection signal input terminal H: DIN plug detect
37	XJACK DET	I	LINE IN plug detection signal input terminal L: LINE or OPT plug detect
38	XMIC DET	I	Microphone plug detection signal input terminal L: microphone plug detect
39	OPEN CLOSE SW	I	Open/close detection switch of the upper panel input terminal L: when upper panel close
40	SET CODE0	I	Input terminal for the set (fixed at L in this set)
41	SET CODE1	I	Input terminal for the set (open in this set)
42, 43	SET CODE1, 2	I	Input terminal for the set (fixed at L in this set)
44	XPATCH	I	Patch function detection terminal L: patch function Not used
45	SI0	I	Serial data input from the nonvolatile memory and liquid crystal display element module
46	SO0	0	Serial data output to the nonvolatile memory, A/D converter and liquid crystal display element module
47	SCK0	0	Serial clock signal output to the nonvolatile memory, A/D converter and liquid crystal display element module
48	XGUM ON	I	Rechargeable battery detection switch input terminal L: rechargeable battery in detect
49	BEEP	О	Beep sound control signal output to the headphone amplifier
50, 51	TEST1, TEST0	I	Input terminal for the main test (normally fixed at L)
52	KDO	О	Data output terminal (fixed at L in this set)
53	KRB	I	Ready/busy signal input terminal (fixed at L in this set)
54	KCLK	О	Clock signal output terminal Not used
55	KCS	О	Chip select signal output terminal Not used
	~~	_	i o martina a caracter

Pin No.	Pin Name	I/O	Description			
56	KDI	I	Data input terminal Not used			
57	TRST	I	Setting terminal for the test mode (normally fixed at "L")			
58	XOPT CTL	О	Power supply ON/OFF control signal output for the DIN PD drive			
59	VG CTL	О	VG power supply voltage control signal output terminal Not used			
60	AOUT SEL	О	HP/LINE changeover signal output to the headphone amplifier			
61	REC OPR LED	О	LED ON/OFF control signal output for the REC display			
62	TSB SSB CTL	О	TSB/SSB changeover control signal output terminal Not used			
63	GND SW2	О	Battery for Cradle ON/OFF switch control signal output terminal Not used			
64	CLK SEL	О	System clock select signal output to the power control			
65	MIC SENSE	О	Mic sensitivity control signal output to the mic amplifier "L": Low sensitivity "H": High sensitivity (normally: "H")			
66	GND SW	О	GND changeover control signal output terminal			
67	XCS LCD	О	Chip select signal output to the liquid crystal display element module			
68	LCD STB	О	Strobe signal output to the liquid crystal display element module			
69	MUTE	О	Analog muting control signal output "H": muting ON Not used			
70	CS RTC	О	Chip select signal output to the clock IC			
71	XCS NV1	О	Chip select signal (1) output to the nonvolatile memory			
72	IFVDD1	_	Power supply terminal (for the microcomputer I/F block) (+1.7V)			
73	IFVSS1	_	Ground terminal (for the microcomputer I/F block)			
74	XRST MTR DRV	О	Reset control signal output to the motor driver "L": reset			
75	XRF RST	О	Reset control signal output to the RF amplifier "L": reset			
76	SPDL MON	I	Spindle servo monitor signal input			
77	XHOLD SW	I	HOLD switch input terminal "L": hold ON			
78, 79	JOG A, B	I	Jog dial pulse input terminal from the switch & liquid crystal display element module			
80, 81	PD S0, PD S1	О	PD IC mode changeover signal output to the optical pick up			
82	PAUSE KEY	I	Pause key input terminal from the switch & liquid crystal display element module			
83	PROTECT	I	Detection input terminal of the record check claw from the protect detection switch "H": protect			
84	SLD MON	I	Sled servo monitor signal input terminal			
85	VLON	О	Power supply control signal output for the laser diode drive to the power control			
86	DVSS1		Ground terminal (for the DSP block)			
87	DVDD1		Power supply terminal (for the DSP block) (+1.1V)			
88	SLEEP	О	System sleep control signal output to the power control "H": sleep ON			
89	FFCLR	О	Input latch output for the start switching to the power control			
90	CHG GAIN	О	Charge gain control signal output to the power control			
91	CHG CTL	О	Charge ON/OFF control signal output to the power control "H": charge ON			
92	CHGI CTL	О	Charge current control signal output terminal Not used			
93	XHP STBY	О	Power supply control signal output terminal Not used			
94	XCS NV2	О	Chip select signal (2) output to the nonvolatile memory			
95	IFVSS2	_	Ground terminal (for the microcomputer I/F block)			
96	IFVDD2	_	Power supply terminal (for the microcomputer I/F block) (+1.7V)			
97	T MARK SW	I	T MARK (track mark) switch input terminal "L": track mark detection Not used			
98	CHG LED	О	LED ON/OFF control signal output for CHG (charge display) from the switch & liquid crystal display element module Not used			
99	NC	I	Initial switch detection input terminal Not used			
100	NC	_	Not used			

Pin No.	Pin Name	I/O	Description
101	XUDP UP ON	О	Pull-up resistor changeover control signal output of USB data (+) output terminal Not used
102	LCD RST	О	Reset control signal output to the liquid crystal display element module L: reset
103	XMUTE	О	Analog muting control signal output to the headphone amplifier L: muting ON
104	XRST	I	System reset signal input from the power control L: reset
105	STAND DET	I	USB cradle detection signal input terminal (fixed at L in this set)
106	VB MON	I	Voltage monitor input terminal (A/D input) of the UNREG power supply
107	CHG MON	I	Charge voltage monitor input (A/D input) from the power control
108	VREF MON	I	Clear reference voltage monitor input (A/D input) from the RF amplifier
109, 110	SET KEY 1, 2	I	Key input terminal (A/D input) from the switch & liquid crystal display element module
111	VBUS DET	I	USB power supply voltage detection terminal (fixed at L in this set)
112	HIDC MON	I	HIGH DC voltage monitor input terminal (A/D input)
113	WK DET	I	Set key and USB start switching detection signal input terminal (A/D input)
114	REC KEY	I	REC key input terminal (A/D input)
115	HALF LOCK SW	I	Open button detection switch input terminal (A/D input) Input L when the open button is pressed. Input H in other cases.
116	RMC KEY	I	Key input terminal (A/D input) from the remote commander attached headphone
117	AVDD		Power supply terminal (for the microcomputer analog) (+2.6V)
118	AVSS		Ground terminal (for the microcomputer analog)
119	TSMVDD		Power supply terminal (for the TSB master communication) (+2.6V)
120	RMC DTCK	I/O	Serial data input/output with the remote commander attached headphone
121	TSLVDD		Power supply terminal (for the I/F to TSB slave) (+1.7V)
122, 123	NC		Not used
124	TAT		Not used
125	TAN		Not used
126	NAR		Not used
127	ID0		Not used
128	SAK		Not used
129	IT0		Fixed at L in this set
130	MITY		Fixed at L in this set
131	SUSPEND	О	USB suspend signal output terminal Not used
132	USBIFVDD		Power supply terminal (for USB I/F) (+3V) (fixed at L in this set)
133	UDM	I	USB data (-) input terminal (fixed at L in this set)
134	UDP	I	USB data (+) input terminal (fixed at L in this set)
135	UPUEN	О	USB pull-up resistor connection control output terminal Not used
136	USBOSCVDD		Power supply terminal (for the USB oscillation circuit) (+2.2V) (fixed at L in this set)
137	UOSCI	I	Clock (48MHz) input terminal for the USB (fixed at L in this set)
138	UOSCO	0	Clock (48MHz) output terminal for the USB Not used
139	USBOSCVSS		Ground terminal (for the USB oscillation circuit)
140 to 142	MODE1 to 3	О	Power supply control signal output for the over write head to the over write head drive
143	HD CON 1	О	Over write head control signal output to the over write head drive
144	PBVDD		Power supply terminal (+1.7V)
145	HD CON 2	0	Over write head control signal output to the over write head drive
146	XTEST	I	Terminal for test mode set (normally: open) L: test mode
147	XCS ADA	О	Chip select signal output to the A/D converter
148	XPD ADA	О	Power supply control signal output for the drive to the A/D converter

Pin No.	Pin Name	I/O	Description
149	VDIOSC	_	Power supply terminal (for the OSC cell) (+2.2V)
150	OSCI	I	System clock (45.1584MHz) input terminal
151	OSCO	0	System clock (45.1584MHz) output terminal
152	VSIOSC	I	Ground terminal (for the OSC cell)
153	DAVDD	_	Power supply terminal (for the built-in D/A converter) (+2.2V)
154	VREFL	I	Reference voltage input terminal (for the built-in D/A converter L-CH)
155	AOUTL	0	Built-in D/A converter (L-CH) output terminal
156	AOUTR	0	Built-in D/A converter (R-CH) output terminal
157	VREFR	I	Reference voltage input terminal (for the built-in D/A converter R-CH)
158	DAVSS	_	Ground terminal (for the built-in D/A converter)
159	ASYO	0	Playback EFM duplex signal output terminal
160	ASYI	I	Playback EFM comparison slice level input terminal
161	AVD1	_	Power supply terminal (for the DSP asymmetry system analog) (+2.2V)
162	BIAS	I	Bias current input terminal for the playback EFM comparison
163	RFI	I	Playback EFM the RF signal input from the RF amplifier
164	AVS1	_	Ground terminal (for the DSP asymmetry system analog)
165	PCO	О	Phase comparison output terminal for the playback EFM system master PLL
166	FILI	I	Filter input terminal for the playback EFM system master PLL
167	FILO	0	Filter output terminal for the playback EFM system master PLL
168	CLTV	I	Internal VCO control voltage input terminal for the playback EFM system master PLL
169	PEAK	I	Peak hold signal input of the light amount signal (RF/ABCD) from the RF amplifier
170	BOTM	I	Bottom hold signal input of the light amount signal (RF/ABCD) from the RF amplifier
171	ABCD	I	Light amount signal (ABCD) input from the RF amplifier
172	FE	I	Focus error signal input from the Focus error amplifier
173	AUX1	I	Support signal (I ₃ signal/temperature signal) input terminal (A/D input)
174	VC	I	Middle point voltage (+1.1V) input terminal
175	ADIO	О	Monitor output terminal of A/D converter input signal Not used
176	ADRT	I	A/D converter the upper limit voltage input terminal (fixed at "H" in this set)
177	AVD2	_	Power supply terminal (for the DSP servo analog system) (+2.2V)
178	AVS2	_	Ground terminal (for the DSP servo analog system)
179	ADRB	I	A/D converter the lower limit voltage input terminal (fixed at "L" in this set)
180	SE	I	Servo signal monitor input terminal (A/D input) from the RF amplifier
181	TE	I	Tracking error signal input from the Tracking error amplifier
182	DCHG	_	Connecting terminal with the analog power supply of the low impedance (fixed at "H" in this set)
183	APC	I	Error signal input for the laser automatic power control (fixed at "H" in this set)
184	CKRF	0	Clock output terminal for the RF amplifier control Not used
185	DTRF	0	Data output terminal for the RF amplifier control Not used
186	XLRF	0	Latch signal output terminal for the RF amplifier control Not used
187	DVSS2	_	Ground terminal (for the DSP block)
188	DVDD2	_	Power supply terminal (for the DSP block) (+1.1V)
189	XTSL	I	Input terminal for the frequency set up of the system clock "L": 45.1584MHz, "H": 22.5792MHz (fixed at "L" in this set)
190	DIN1	I	Input terminal of the record system digital audio signal
191 to 193	NC	О	D/A converter PWM signal output terminal Not used
194	DADT	0	Audio data output terminal Not used

Pin No.	Pin Name	I/O	Description
195	ADDT	I	Data input from the external A/D converter
196	LRCK	О	L/R sampling clock signal (44.1KHz) output to the external A/D converter
197	XBCK	О	Bit clock signal (2.8224MHz) output to the external A/D converter
198	FS256	О	11.2896MHz clock signal output to the external A/D converter
199	NC	I	Clock signal input from the external VCO Not used
200	DVSS3	_	Ground terminal (for the DSP block)
201	DVDD3	_	Power supply terminal (for the DSP block) (+1.1V)
202	ADFG	I	ADIP duplex FM signal (20.05±1kHz) input from the RF amplifier
203	NC	О	Filter cut off control signal output terminal Not used
204	IFVDD3	_	Power supply terminal (for the microcomputer I/F block) (+1.7V)
205	IFVSS3	_	Ground terminal (for the microcomputer I/F block)
206	APCREF	О	Reference PWM signal output for the laser automatic power control to the RF amplifier
207	TRDR	О	Tracking servo drive PWM signal output (–) to the coil driver
208	TFDR	О	Tracking servo drive PWM signal output (+) to the coil driver
209	FFDR	О	Focus servo drive PWM signal output (+) to the coil driver
210	FRDR	О	Focus servo drive PWM signal output (–) to the coil driver
211	FS4	О	176.4kHz clock signal output to the power control
212	SPRD	0	Spindle motor drive control signal output (U) to the motor driver
213	SPFD	0	Spindle servo drive PWM signal output to the motor driver
214	SPDV	0	Spindle motor drive control signal output (V) to the motor driver
215	SPDW	0	Spindle motor drive control signal output (W) to the motor driver
216	SPCU	I	Spindle motor drive comparison signal input (U) from the motor driver
217	SPCV	I	Spindle motor drive comparison signal input (V) from the motor driver
219	SPCW SRDR	O	Spindle motor drive comparison signal input (W) from the motor driver Sled motor drive control signal output (U) to the motor driver
220	SFDR	0	Sled servo drive PWM signal output to the motor driver
221	SLDV	0	Sled motor drive control signal output (V) to the motor driver
222	SLDW	0	Sled motor drive control signal output (W) to the motor driver
223	DVSS4	_	Ground terminal (for the DSP block)
224	DVDD4		Power supply terminal (for the DSP block) (+1.1V)
225	SLCU	I	Sled motor drive comparison signal input (U) from the motor driver
226	SLCV	I	Sled motor drive comparison signal input (V) from the motor driver
227	SLCW	I	Sled motor drive comparison signal input (W) from the motor driver
228	IFVDD4	_	Power supply terminal (for the microcomputer I/F block) (+1.7V)
229	IFVSS4	_	Ground terminal (for the microcomputer I/F block)
230	EFMO	О	EFM encode data output for the record to the over write head drive
231 to 233	MNT0 to 2	О	DSP monitor (0) to (2) output terminal Not used
234	MNT3	О	Off track signal output from the DSP monitor (3)
235	SENSE	О	DSP internal status (DSP SENS monitor) signal output terminal Not used
236	TX	0	Record data output enable signal output monitor terminal of the DSP Not used
237	RECP	О	Laser power changeover signal output terminal Not used
238	LRCKI/XELT	I	Input terminal for the PCM data I/F/ ATRAC data I/F Not used
239	XBCKI/ECK	I	Input terminal for the PCM data I/F/ ATRAC data I/F Not used
240	DATAI/EDT	I	Input terminal for the PCM data I/F/ ATRAC data I/F Not used
241	XERQ	I	Input terminal for the ATRAC data I/F Not used

Pin No.	Pin Name	I/O	Description
242	A11	О	Address signal output terminal for D-RAM Not used
243	XOE	О	Output enable signal output terminal for D-RAM Not used
244	XWE	О	Data write enable signal output terminal for D-RAM Not used
245	TSTDR3	I	Test input terminal for D-RAM Not used
246	EVA	I	EVA/FLASH chip discrimination terminal "L": FLASH chip, "H": EVA chip (fixed at "L" in this set)
247	FLASHVDD	_	Power supply terminal (for the built-in flash memory) (+2.2V)
248	FLASHVSS		Ground terminal (for the built-in flash memory)
249 to 256	NC	_	Not used

SECTION 7 EXPLODED VIEWS

NOTE:

- · -XX and -X mean standardized parts, so they may have some difference from the original
- Color Indication of Appearance Parts Example:

KNOB, BALANCE (WHITE) . . . (RED)

Parts Color Cabinet's Color

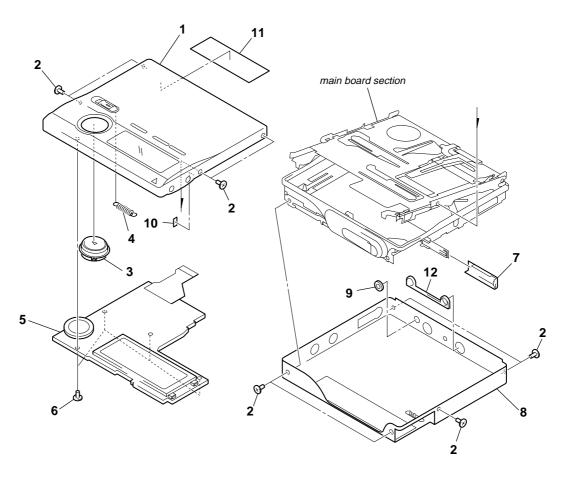
· Abbreviation

HK: Hong Kong model JEW: Tourist model

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

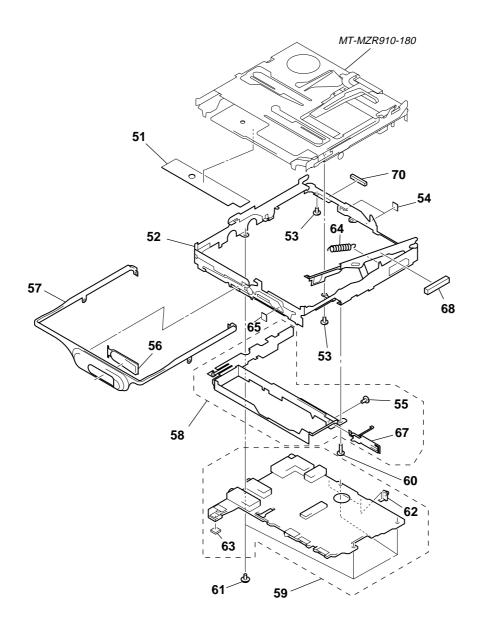
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

7-1. PANEL SECTION



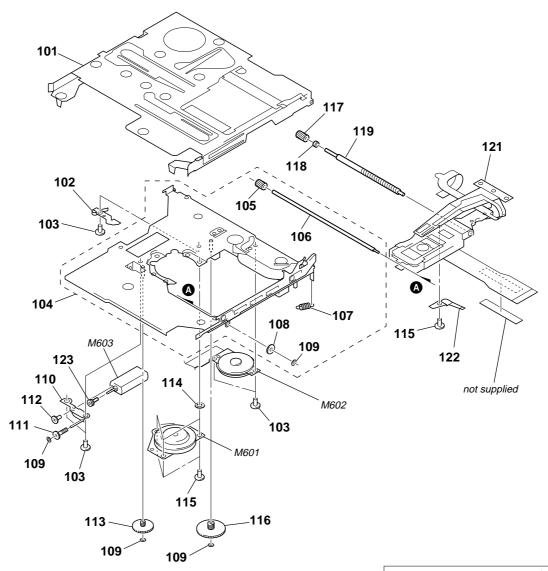
Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
1	X-3382-407-1	PANEL (S) ASSY, UPPER (SILVER)		7	3-220-484-91	LID, BATTERY CASE (PINK)	
1	X-3382-408-1	PANEL (L) ASSY, UPPER (BLUE)		8	X-3382-371-1	PANEL (S) ASSY, BOTTOM (SILVER)	(JEW)
1	X-3382-409-1	PANEL (P) ASSY, UPPER (PINK)		8	X-3382-372-1	PANEL (L) ASSY, BOTTOM (BLUE) (JÈW)
2	3-225-873-09	SCREW (M1.4)		8	X-3382-373-1	PANEL (P) ASSY, BOTTOM (PINK) (JEW)
3	3-243-735-01	BUTTON (5 POINT) (SILVER, BLUE)				
				8	X-3382-374-1	PANEL (S) ASSY, BOTTOM (SILVER)	(HK)
3	3-243-735-11	BUTTON (5 POINT) (PINK)		8	X-3382-375-1	PANEL (L) ASSY, BOTTOM (BLUE) (HK)
4	3-243-728-01	SPRING, TENSION		8	X-3382-376-1	PANEL (P) ASSY, BOTTOM (PINK) (F	HK)
5	1-804-813-11	LCD MODULE		9	3-010-287-01	COLLAR (DC IN)	
6	4-984-017-01	SCREW (1.7), TAPPING		10	3-236-553-01	SHEET (FULCRUM PLATE R) (B)	
7	3-220-484-71	LID, BATTERY CASE (SILVER)					
				11	3-236-622-01	SHEET (UPPER)	
7	3-220-484-81	LID, BATTERY CASE (BLUE)		12	4-223-105-01	ESCUTCHEON	

7-2. CHASSIS SECTION



Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
51	3-220-477-01	SHEET (MD), INSULATING		61	3-244-690-01	SCREW (M1.4), TOOTHED LOCK	
52	X-3379-320-6	CHASSIS ASSY, SET		62	4-223-110-03	TERMINAL (3)	
53	3-225-996-04	SCREW (M1.4)(EG),PRECISION PAN		63	3-226-169-01	SPACER (PRO)	
54	3-224-089-01	SHEET (TERMINAL), INSULATING		64	3-236-661-01	SPRING (ARM) (POWER TENSION),C	OIL
55	4-218-229-25	SCREW (1.4), MI		65	3-237-214-01	SHEET (OPEN)	
56	3-220-465-03	BUTTON (OPEN)		67	X-3382-412-2	TERMINAL (PLUS) ASSY, BATTERY	
57	3-220-464-03	STRIP, ORNAMÉNTAL		68	3-226-758-01	SPACER (FULCRUM PLATE R2)	
58	X-3382-413-2	CASE ASSY, BATTERY		70	3-226-168-01	SPACER (REAR) (2)	
* 59	A-3178-738-A	MAIN BOARD, COMPLETE					
60	3-225-873-29	SCREW (M1.4)					

7-3. MD MECHANISM DECK SECTION (MT-MZR910-180)



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	Remark
101	X-3379-498-9	HOLDER ASSY		114	4-997-677-21	WASHER	
102	3-224-779-02	SPRING, THRUST DETENT		115	3-225-996-06	SCREW (M1.4)(EG),PRECISION PAN	
103	3-225-996-01	SCREW (M1.4)(EG),PRECISION PAN					
104	X-3379-497-5	CHASSIS ASSY		116	4-222-216-01	GEAR (SA)	
105	4-222-218-02	GEAR (HD)		117	4-222-208-01	GEAR (SB)	
				118	3-043-237-02	BEARING (N)	
106	4-222-223-01	SHAFT, SUB		119	4-222-203-02	SCREW, LEAD	
107	4-222-226-01	SPRING (EJECT), TENSION		121 △ 121	X-3382-468-1	OPTICAL PICK-UP ASSY (LCX-5RV)	
108	4-222-222-01	GEAR (RACK)					
109	3-338-645-31	WASHER (0.8-2.5)		122	4-222-205-11	SPRING, RACK	
110	X-4951-918-3	CHASSIS ASSY, GEAR		123	3-222-544-01	GEAR (HA)	
				M601	8-835-744-01	MOTOR, DC SSM18B (SPINDLE)	
111	3-222-545-01	GEAR (HB)				(including TU	RNTABLE)
112	4-224-885-01	SCREW (M1.2X1.5)		M602	1-763-727-11	MOTOR, DC (SLED) (including GEAR)	
113	4-222-215-01	GEAR (HC)		M603	1-763-400-21	MOTOR, DC (OVER WRITE HEAD UP/D	OOWN)

MAIN

SECTION 8 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original
- RESISTORS

All resistors are in ohms. METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable • Abbreviation

HK: Hong Kong model JEW: Tourist model

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS

In each case, u: μ , for example:

 $uA.\ . \quad : \mu A.\ .$ uPA. . : μPA. . $uPB.\ .\ : \mu PB.\ .$ $uPC..: \mu PC..$

- uPD. . : μPD. . CAPACITORS
- uF: μF COILS
- uH: μH

The components identified by ne components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
*	Δ-3178-738-Δ	MAIN BOARD. CO	MPI FTF			C313	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
	A-3170-730-A	*****				C314	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
						C315		TANTAL. CHIP	2.2uF	20%	6.3V
	4 222 110 02	TERMINAL (3)				C316		TANTAL. CHIP	4.7uF	20%	6.3V
	4-223-110-03	TERIVITINAL (3)						TANTAL. CHIP			6.3V
		<capacitor></capacitor>				C320	1-117-919-11	TANTAL. UTIP	10uF	20%	0.37
		<uafauitun></uafauitun>				C322	1_121_962_01	TANTAL. CHIP	47uF	20%	4V
C101	1_125_027_01	CERAMIC CHIP	1uF	10%	6.3V	C323		TANTAL. CHIP	10uF	20%	6.3V
C101		CERAMIC CHIP	0.0047uF	10%	16V	C330		CERAMIC CHIP	0.1uF	20 /0	16V
		CERAMIC CHIP	0.0047uF		50V	l				200/	
C103				10%		C332		TANTAL. CHIP	10uF	20%	6.3V
C104		TANTAL CHIP	220uF	20%	2.5V	C335	1-104-933-11	CERAMIC CHIP	220PF	10%	50V
C105	1-113-000-11	TANTAL. CHIP	2.2uF	20%	6.3V	C336	1 105 007 01	CERAMIC CHIP	1uF	10%	6.3V
0107	1 164 049 11	CEDAMIC CLUD	0.01	100/	161/						
C107		CERAMIC CHIP	0.01uF 470PF	10%	16V 50V	C344		CERAMIC CHIP	0.01uF	10%	16V 50V
C108		CERAMIC CHIP		10%		C501		CERAMIC CHIP	100PF	5%	
C110		CERAMIC CHIP	1uF	10%	6.3V	C502		CERAMIC CHIP	0.022uF	10%	16V
C111		CERAMIC CHIP	100PF	5%	50V	C503	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C112	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	0504	1 101 000 11	0554440 01115	0.0000 5	100/	E01/
0440	1 101 000 01	TANTAL OLUB	47 5	000/	4) /	C504		CERAMIC CHIP	0.0022uF	10%	50V
C113		TANTAL. CHIP	47uF	20%	4V	C505		CERAMIC CHIP	0.01uF	10%	16V
C116		CERAMIC CHIP	0.001uF	10%	50V	C506		CERAMIC CHIP	0.022uF	10%	16V
C117		CERAMIC CHIP	0.1uF	10%	10V	C507		CERAMIC CHIP	0.022uF	10%	16V
C118		CERAMIC CHIP	0.0022uF	10%	50V	C508	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C201	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V						
						C509		CERAMIC CHIP	0.0022uF	10%	50V
C202		CERAMIC CHIP	0.0047uF	10%	16V	C510		CERAMIC CHIP	10PF	0.50PF	
C203		CERAMIC CHIP	0.0022uF	10%	50V	C511		CERAMIC CHIP	10PF	0.50PF	
C204		TANTAL. CHIP	220uF	20%	2.5V	C512		CERAMIC CHIP	0.1uF	10%	10V
C205	1-113-600-11	TANTAL. CHIP	2.2uF	20%	6.3V	C513	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C207	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V						
						C514		CERAMIC CHIP	0.022uF	10%	16V
C208		CERAMIC CHIP	470PF	10%	50V	C515		CERAMIC CHIP	0.1uF	10%	10V
C210		CERAMIC CHIP	1uF	10%	6.3V	C516	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C211	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C518	1-125-926-11	TANTAL. CHIP	4.7uF	20%	6.3V
C212	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C519	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C213	1-131-862-91	TANTAL. CHIP	47uF	20%	4V						
						C521	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C216		CERAMIC CHIP	0.001uF	10%	50V	C522		CERAMIC CHIP	0.1uF	10%	10V
C217	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C523		CERAMIC CHIP	1uF	10%	6.3V
C218	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V	C524	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C301	1-125-839-91	TANTAL. CHIP	47uF	20%	6.3V	C526	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C302	1-107-820-11	CERAMIC CHIP	0.1uF		16V						
						C527	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C303	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V	C529	1-125-840-91	TANTALUM	10uF	20%	6.3V
C304	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C530	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C305	1-113-600-11	TANTAL. CHIP	2.2uF	20%	6.3V	C532	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C306	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C557	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C307	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V						
						C558	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C308	1-107-820-11	CERAMIC CHIP	0.1uF		16V	C559		CERAMIC CHIP	0.022uF	10%	16V
C309	1-104-847-11		22uF	20%	4V	C561		CERAMIC CHIP	0.1uF	10%	10V
C310	1-125-899-11	TANTAL. CHIP	220uF	20%	4V	C562	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C311	1-128-964-91		100uF	20%	6.3V	C563		CERAMIC CHIP	0.047uF	10%	10V
C312		TANTAL. CHIP	22uF	20%	4V						
						l					

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C564		CEDAMIC CHID	0.047uF	100/	10V		1 107 010 11	CEDAMIC CHID	0.022uF	100/	16V
C566		CERAMIC CHIP	0.047uF 0.1uF	10%	10V 10V	C835 C836		CERAMIC CHIP	0.022ur 0.1uF	10%	10V 10V
		CERAMIC CHIP		10%				CERAMIC CHIP		10%	16V
C570		CERAMIC CHIP	0.01uF	10%	16V	C839		CERAMIC CHIP	0.01uF	10%	
C571		CERAMIC CHIP	0.01uF	10%	16V	C840		CERAMIC CHIP	0.1uF		16V
C572	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C841	1-107-820-11	CERAMIC CHIP	0.1uF		16V
0001	1 104 040 11	OEDAMIC CUID	0.015	100/	101/	0040	1 104 040 11	OEDAMIO OLUD	0.015	100/	101
C601		CERAMIC CHIP	0.01uF	10%	16V	C846		CERAMIC CHIP	0.01uF	10%	16V
C602		CERAMIC CHIP	0.1uF	10%	10V	C847	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C603		TANTAL. CHIP	47uF	20%	6.3V	C850		CERAMIC CHIP	0.001uF	10%	50V
C604		CERAMIC CHIP	0.01uF	10%	16V	C851		CERAMIC CHIP	0.1uF	10%	10V
C605	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	C901	1-125-840-91	IANIALUM	10uF	20%	6.3V
0000	4 404 074 44	OED ANAIO OLUD	400DE	F0/	E01/	0000	4 405 040 04	TABITALLIBA	40	000/	0.01/
C606		CERAMIC CHIP	100PF	5%	50V	C902	1-125-840-91		10uF	20%	6.3V
C607		CERAMIC CHIP	100PF	5%	50V	C903		TANTAL. CHIP	100uF	20%	6.3V
C608		CERAMIC CHIP	0.1uF	10%	10V	C904	1-125-840-91		10uF	20%	6.3V
C609	1-137-762-91		10uF	20%	4V	C905		CERAMIC CHIP	0.1uF	10%	10V
C610	1-125-///-11	CERAMIC CHIP	0.1uF	10%	10V	C906	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
0011		TANITAL OLUB	40.5	000/	0.01/	0007	1 105 000 01	0504440 01110	00 5	100/	40)/
C611		TANTAL. CHIP	10uF	20%	6.3V	C907		CERAMIC CHIP	2.2uF	10%	10V
C612		TANTAL. CHIP	10uF	20%	6.3V	C908		CERAMIC CHIP	0.1uF	10%	10V
C613		CERAMIC CHIP	0.1uF	10%	10V	C913		CERAMIC CHIP	0.0047uF	10%	16V
C614		CERAMIC CHIP	0.1uF	10%	10V	C914		CERAMIC CHIP	0.1uF	10%	10V
C615	1-137-760-91	CAP-CHIP	100PF	5%	100V	C915	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
0010		0554440 01115				001-		055444000			4014
C616		CERAMIC CHIP	0.1uF	10%	10V	C917		CERAMIC CHIP	0.1uF	10%	10V
C618		CERAMIC CHIP	0.1uF	10%	10V	C919		TANTAL. CHIP	10uF	20%	6.3V
C619		CERAMIC CHIP	0.1uF	10%	10V	C920		TANTAL. CHIP	10uF	20%	6.3V
C621		CERAMIC CHIP	0.01uF	10%	16V	C921		CERAMIC CHIP	0.1uF	10%	10V
C622	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C922	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C623		TANTAL. CHIP	22uF	20%	4V	C923		CERAMIC CHIP	2.2uF	10%	10V
C624		TANTAL. CHIP	22uF	20%	4V	C926		CERAMIC CHIP	0.001uF	10%	50V
C625	1-131-862-91	TANTAL. CHIP	47uF	20%	4V	C928	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C626		TANTAL. CHIP	47uF	20%	6.3V	C929		TANTAL. CHIP	22uF	20%	4V
C627	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C930	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C629	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C931	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C630	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C932		CERAMIC CHIP	0.1uF	10%	10V
C631	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V	C933	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C633		CERAMIC CHIP	0.1uF	10%	10V	C934	1-137-762-91	TANTALUM	10uF	20%	4V
C803	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V	C935	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C804		CERAMIC CHIP	0.01uF	10%	16V	C936	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C805		CERAMIC CHIP	0.1uF	10%	10V						
C808		CERAMIC CHIP	10PF	0.50PF	50V			<connector></connector>			
C809		CERAMIC CHIP	10PF	0.50PF							
C810	1-125-840-91	TANTALUM	10uF	20%	6.3V			CONNECTOR, FF		20P	
								CONNECTOR, FP	- () -		
C811		CERAMIC CHIP	1uF	10%	6.3V	* CN801	1-815-791-21	CONNECTOR, FP	C (ZIF) 19P		
C812	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V						
C813		CERAMIC CHIP	1uF	10%	6.3V			<diode></diode>			
C814	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V						
C815	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V	D301	8-719-081-71	DIODE BT169G	-OT384G11	5	
						D303	8-719-046-91	DIODE MA2S11	1		
C816	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V	D601	8-719-081-33	DIODE MA2YD1	500LS0		
C817	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V	D602	8-719-081-33	DIODE MA2YD1	500LS0		
C818	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V	D603	8-719-081-34	DIODE RB160M	I-30TR		
C819	1-164-935-11	CERAMIC CHIP	470PF	10%	50V						
C820	1-125-839-91	TANTAL. CHIP	47uF	20%	6.3V	D606	8-719-081-35	DIODE MA2YD1	700LS0		
						D607	8-719-081-33	DIODE MA2YD1	500LS0		
C821	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	D608		DIODE MA2YD1			
C822		CERAMIC CHIP	0.1uF	10%	10V	D901		DIODE MA2YD1			
C825		TANTAL. CHIP	10uF	20%	6.3V	D902		DIODE MA2YD1			
C826		CERAMIC CHIP	0.22uF	10%	16V						
C828		TANTAL. CHIP	10uF	20%	6.3V	D903	8-719-420-51	DIODE MA729			
				/-		D904		DIODE MA2S11	1		
C829	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	D905		DIODE MA2Z74			
C830		CERAMIC CHIP	0.1uF	10%	10V	2000	5 O O/L L/	2.022 WINELIT	200100		
C831		TANTAL. CHIP	100uF	20%	6.3V			<fuse></fuse>			
C832		CERAMIC CHIP	0.1uF	10%	10V			11 0022			
C833		CERAMIC CHIP	0.101 0.022uF	10%	16V	F801	1-576-439-21	FUSE (SMD) (25	OmA)		
0000	1 101 010-11	OFTH MAND OLLIN	J.JZZUI	10/0	100	1001	1 010 703-21	. JOE (OIVID) (23	······································		

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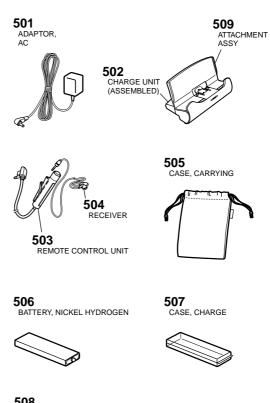
Ref. No.	Part No.	Description			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
		<ferrite bead:<="" td=""><td>></td><td></td><td></td><td>Q905</td><td>8-729-037-75</td><td>TRANSISTOR</td><td>UN9214J-(</td><td>TX).SO</td><td></td></ferrite>	>			Q905	8-729-037-75	TRANSISTOR	UN9214J-(TX).SO	
ED004	1 010 001 11	METAL OLUB	0	F0/	4 (4 0) M	Q906		TRANSISTOR		,	
FB301 FB303	1-216-864-11 1-216-809-11		0 100	5% 5%	1/16W 1/16W	Q907	8-729-055-32	TRANSISTOR	3LN01SS-1	L	
FB304	1-216-809-11		100	5%	1/16W	Q908		TRANSISTOR			
FB306	1-216-864-11		0	5%	1/16W	Q909		TRANSISTOR			
FB805	1-216-864-11	METAL CHIP	0	5%	1/16W	Q910 Q911		TRANSISTOR TRANSISTOR		` '	
		<ic></ic>				QJII	0-129-001-92	MANOIOTON	20022100	11(17).50	
10201	0.750.604.00	IC AK5354VT-E	n					<resistor></resistor>			
IC301 IC302		IC AN17020A-V				R101	1-208-715-11	METAL CHIP	22K	1%	1/16W
IC303		IC NJM2173AP				R102	1-208-707-11		10K	1%	1/16W
IC501		IC SN761057AD				R103	1-218-965-11	RES-CHIP	10K	5%	1/16W
IC551	6-700-680-01	IC SC111258FC	R2			R104	1-220-803-81		4.7	5%	1/16W
IC601	6-701-477-01	IC XPC18A22AF	CR2			R105	1-208-643-11	RES-CHIP	22	5%	1/16W
@ IC801		IC CXD2677-20				R106	1-208-707-11	METAL CHIP	10K	1%	1/16W
IC802		IC AK6417AL-L				R111	1-208-715-11		22K	1%	1/16W
IC803		IC AK6480BL-L				R112	1-208-927-11		47K	1%	1/16W
IC901	6-700-880-01	IC XPC18A32AF	CR2			R118	1-208-715-11		22K	1%	1/16W
10000	0.704.000.04	10 V00000D101	IMD			R201	1-208-715-11	METAL CHIP	22K	1%	1/16W
IC902 IC903		IC XC6368D101 IC XC61CN0802				R202	1-208-707-11	METAL CHIP	10K	1%	1/16W
						R203	1-218-965-11		10K	5%	1/16W
		<jack></jack>				R204	1-220-803-81		4.7	5%	1/16W
1001						R205	1-208-643-11 1-208-707-11		22 10K	5%	1/16W 1/16W
J301 J302		JACK (LINE IN (C JACK (\(\theta\)/LINE O				R206	1-200-707-11	WE TAL UTIF	IUK	1%	1/1000
J302 J303		JACK (MIC (PLU		R))		R211	1-208-715-11	METAL CHIP	22K	1%	1/16W
J601		JACK,DC(POLAR			(DC IN 3V)	R212	1-208-927-11		47K	1%	1/16W
		, , ,		,	(/	R218	1-208-715-11		22K	1%	1/16W
		<inductor></inductor>				R301	1-208-707-11		10K	1%	1/16W
1 201	1 460 505 01	INDUCTOR	10uH			R302	1-218-953-11	RES-CHIP	1K	5%	1/16W
L301 L302	1-469-535-21 1-469-535-21		10uH			R303	1-218-981-11	RES-CHIP	220K	5%	1/16W
L303	1-469-535-21		10uH			R304	1-218-953-11		1K	5%	1/16W
L501	1-469-535-21		10uH			R305	1-218-953-11		1K	5%	1/16W
L502	1-469-535-21	INDUCTOR	10uH			R306	1-218-985-11		470K	5%	1/16W
L601	1-428-912-21	INDUCTOR	10uH			R307	1-218-941-81	RES-CHIP	100	5%	1/16W
L602	1-420-912-21		10uH			R309	1-208-943-11	METAL CHIP	220K	1%	1/16W
L603	1-469-535-21		10uH			R312	1-218-977-11	RES-CHIP	100K	5%	1/16W
L801	1-469-535-21		10uH			R313	1-218-977-11		100K	5%	1/16W
L802	1-469-535-21	INDUCTOR	10uH			R314	1-218-965-11		10K	5%	1/16W
L901	1-419-953-21	INDUCTOR	100uH			R317	1-218-941-81	KES-CHIP	100	5%	1/16W
L901	1-419-933-21		22uH			R318	1-218-941-81	RES-CHIP	100	5%	1/16W
L903	1-469-367-21		10uH			R319	1-218-941-81	RES-CHIP	100	5%	1/16W
L904	1-414-398-11		10uH			R501	1-218-973-11		47K	5%	1/16W
L905	1-469-426-21	INDUCTOR	100uH			R502 R503	1-218-985-11 1-218-981-11		470K 220K	5% 5%	1/16W 1/16W
L906	1-414-404-41	INDLICTOR	100uH			กงบง	1-610-201-11	NEO-OHIF	ZZUN	J /0	1/ 10 44
L907	1-469-535-21		10uH			R505		METAL CHIP	10K	1%	1/16W
						R507	1-218-953-11		1K	5%	1/16W
		<transistor></transistor>				R517 R519	1-208-683-11 1-218-977-11		1K 100K	1% 5%	1/16W 1/16W
0200	0 700 051 00	TDANICICTOD O	CAOOLOTI			R521	1-218-446-11		1	5%	1/10W
Q302 Q501		TRANSISTOR 2 TRANSISTOR 2		}		1.021	. 210 440 11	EITE OIIII		J /0	1, 1000
Q601		TRANSISTOR S				R522	1-218-446-11	METAL CHIP	1	5%	1/10W
Q602		TRANSISTOR Z				R601	1-218-989-11		1 M	5%	1/16W
Q603	8-729-053-71	TRANSISTOR T	S8K1TB			R602	1-218-981-11		220K	5%	1/16W
0004	0.700.040.40	TDANGUATAR ::	IATOOE4T =	ı		R603 R604	1-218-977-11 1-218-446-11		100K 1	5% 5%	1/16W 1/10W
Q604 Q605		TRANSISTOR H				11004	1 210-440-11	MILIAL VIIII	1	J /0	1/1000
Q801		TRANSISTOR X		L		R605	1-216-789-11	METAL CHIP	2.2	5%	1/16W
Q901		TRANSISTOR X		OMR		R606	1-218-949-11		470	5%	1/16W
Q902		TRANSISTOR 2				R607	1-218-945-11		220	5%	1/16W
						R608	1-218-981-11		220K	5%	1/16W
Q903 Q904		TRANSISTOR S TRANSISTOR 2			1	R609	1-∠18-446-11 r	METAL CHIP	1	5%	1/10W
U904	0-128-031-33	INANSISTUR Z	301402J-U	n(1A).3U	J			@ Replacement			
								used in this s	set requires a	special t	ool.
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Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			Remark
R612	1-218-985-11		470K	5%	1/16W	R928	1-218-989-11		1M	5%	1/16W
R613	1-218-957-11		2.2K	5%	1/16W	R929	1-218-989-11		1M	5%	1/16W
R614	1-218-965-11		10K	5%	1/16W	R930	1-218-989-11		1M	5%	1/16W
R615 R616	1-218-977-11 1-218-446-11		100K 1	5% 5%	1/16W 1/10W	R933 R934	1-218-989-11 1-218-969-11		1M 22K	5% 5%	1/16W 1/16W
HOIO	1-210-440-11	WEIAL UNIP	1	3%	1/1000	N934	1-210-909-11	KES-UNIP	ZZN	3%	1/1000
R620	1-218-965-11	RES-CHIP	10K	5%	1/16W	R935	1-218-989-11	RES-CHIP	1M	5%	1/16W
R621	1-218-965-11	RES-CHIP	10K	5%	1/16W	R937	1-218-985-11	RES-CHIP	470K	5%	1/16W
R622	1-216-797-11	METAL CHIP	10	5%	1/16W	R941	1-218-969-11	RES-CHIP	22K	5%	1/16W
R623	1-218-969-11	RES-CHIP	22K	5%	1/16W	R950	1-218-977-11	RES-CHIP	100K	5%	1/16W
R631	1-218-973-11	RES-CHIP	47K	5%	1/16W	R951	1-218-985-11	RES-CHIP	470K	5%	1/16W
R801	1-218-990-11	CHODE CHID	0			R952	1-218-981-11	DEC CITID	220K	5%	1/16W
R803	1-218-990-11		47K	1%	1/16W	R953	1-218-985-11		470K	5% 5%	1/16W 1/16W
R804	1-208-927-11		47K	1%	1/16W	R954	1-208-927-11		476K 47K	1%	1/16W
R806	1-208-927-11		220K	5%	1/16W	R955	1-218-981-11		220K	5%	1/16W
R813	1-218-989-11		1M	5%	1/16W	R956	1-218-989-11		1M	5%	1/16W
11010	1 210 303 11	TILO OTTI	TIVI	3 /0	1/1000	11330	1 210 303 11	TILO OTTI	1101	3 /0	1/1000
R815	1-218-945-11	RES-CHIP	220	5%	1/16W	R958	1-218-977-11		100K	5%	1/16W
R818	1-218-990-11	SHORT CHIP	0			R959	1-218-981-11	RES-CHIP	220K	5%	1/16W
R819	1-208-635-11	RES-CHIP	10	5%	1/16W	R960	1-218-981-11	RES-CHIP	220K	5%	1/16W
R820	1-218-965-11	RES-CHIP	10K	5%	1/16W	R961	1-208-707-11	METAL CHIP	10K	1%	1/16W
R821	1-218-977-11	RES-CHIP	100K	5%	1/16W						
D000	1 010 077 11	DEC CIUD	1001/	F0/	1/10/1/			<network res<="" td=""><td>ISTOR></td><td></td><td></td></network>	ISTOR>		
R822	1-218-977-11 1-208-635-11		100K	5% 5%	1/16W 1/16W	DDEE1	1 000 060 01	DEC METWORK	CHID TVDI	-\ 0 0K	
R823			10	5% 5%		RB551		RES, NETWORK RES, NETWORK			
R824	1-218-957-11		2.2K		1/16W	RB552					
R825	1-218-957-11		2.2K	5%	1/16W	RB801	1-233-973-11	RES, NETWORK	(CHIP IYPI	=) 100K	
R826	1-218-957-11	RES-CHIP	2.2K	5%	1/16W			<switch></switch>			
R828	1-218-981-11	RES-CHIP	220K	5%	1/16W						
R830	1-218-953-11	RES-CHIP	1K	5%	1/16W	S801	1-786-030-21	SWITCH, SLIDE	(HOLD-	.)	
R831	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	S802	1-771-860-21	SWITCH, PUSH (1 KEY) (PF	OTECT D	ETECT)
R832	1-218-945-11	RES-CHIP	220	5%	1/16W	S803	1-771-806-61	SWITCH, PUSH (
R833	1-220-804-11	RES-CHIP	2.2M	5%	1/16W			(RECHAR	GEABLE BA	TTERY II	N DETECT)
						S804	1-762-805-21	SWITCH, PUSH (1 KEY) (0P	EN/CLOS	E DETECT)
R837	1-208-691-11	METAL CHIP	2.2K	1%	1/16W	S806	1-762-947-12	SWITCH, PUSH (1 KEY) (OF	PEN)	
R840	1-208-691-11	METAL CHIP	2.2K	1%	1/16W						
R845	1-218-989-11	RES-CHIP	1M	5%	1/16W			<transformer< td=""><td>l></td><td></td><td></td></transformer<>	l>		
R846	1-218-941-81		100	5%	1/16W						
R847	1-218-989-11	RES-CHIP	1M	5%	1/16W	T601	1-416-405-21	FERRITE	0μΗ		
R855	1-218-990-11	SHORT CHIP	0					<thermistor></thermistor>			
R860	1-218-953-11		1K	5%	1/16W			***************************************			
R861	1-218-989-11		1M	5%	1/16W	TH601	1-804-616-21	THERMISTOR, P	OSITIVE		
R862	1-218-953-11		1K	5%	1/16W			,			
R863	1-218-953-11	RES-CHIP	1K	5%	1/16W			<vibrator></vibrator>			
R864	1-218-953-11	DEC-CHID	1K	5%	1/16W	X802	1-705-647-91	VIBRATOR, CRYS	STAL (45.1)	5Q/MU-)	
R865	1-218-957-11		2.2K	5%	1/16W			******			*****
R866	1-218-953-11		1K	5%	1/16W				_		
R868	1-218-990-11		0					MISCELLANEOUS	-		
R869	1-218-990-11	SHORT CHIP	0			5	1-804-813-11	LCD MODULE			
B.0.5 -	1 010 05= ::	DE0 0:::5	47011	Ec.	4 (4 6) 1 :	<u> </u>		OPTICAL PICK-U	P ASSY (I (CX-5RV)	
R902	1-218-985-11		470K	5%	1/16W	M601		MOTOR, DC SSM			
R903	1-218-957-11		2.2K	5%	1/16W		0 000 7 11 01		•	,	RNTABLE)
R905	1-218-957-11		2.2K	5%	1/16W	M602	1-763-727-11	MOTOR, DC (SLE			
R909	1-218-965-11		10K	5%	1/16W	M603		MOTOR, DC (OVI			
R910	1-218-965-11	RES-CHIP	10K	5%	1/16W			******			
R911	1-218-949-11	RES-CHIP	470	5%	1/16W			The componen	its identific	d hy ma	rk A or
R915	1-218-941-81		100	5%	1/16W			dotted line wi			
R916	1-218-989-11		1M	1%	1/16W			safety.			
R917	1-218-990-11		0					Replace only w	vith part nu	mber spe	cified.
R920	1-208-707-11		10K	1%	1/16W						
R922	1-208-935-11	МЕТДІ СНІР	100K	1%	1/16W						
R923	1-208-935-11		470K	1%	1/16W						
R924	1-218-957-11		2.2K	5%	1/16W						
R925	1-218-989-11		1M	5%	1/16W						
R927	1-218-989-11		1M	5%	1/16W						
		3		- / -	., . • • •	1					

Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
		ACCESSORIES	

 ∆ 501	1-476-855-11	ADAPTOR, AC (AC-ES305) (JEW)	
±501	1-476-858-11	ADAPTOR, AC (AC-ES305) (HK)	
502	1-476-763-31	CHARGE UNIT	
503	1-476-395-12	REMOTE CONTROL UNIT	
504	8-954-008-90	RECEIVER, EAR MDR-E808SP	
505	3-220-749-01	CASE, CARRYING (JEW)	
506	1-756-120-22	BATTERY, NICKEL HYDROGEN	
507	3-008-521-01	CASE, BATTERY CHARGE (HK)	
507	3-008-521-21	CASE, BATTERY CHARGE (JEW)	
508	1-251-895-11	BATTERY CASE	
509	X-3382-404-1	ATTACHMENT (S) ASSY (SILVER)	
509	X-3382-405-1	ATTACHMENT (L) ASSY (BLUE)	
509	X-3382-406-1	ATTACHMENT (P) ASSY (PINK)	
<u> </u>	1-569-007-11	ADAPTOR, CONVERSION 2P (JEW)	
	1-779-504-11	CONNECTOR, OPTICAL (HK)	
	1-779-504-51	CONNECTOR, OPTICAL (JEW)	
	1-794-451-11	CONNECTOR, LIGHT (HK)	
	1-794-451-51	CONNECTOR, LIGHT (JEW)	
	3-228-300-01	CASE, BELT CLIP CARRYING (HK)	
	3-243-699-01	MANUAL, INSTRUCTION	011) (1514)
		(JAPANESE, ENGLI	SH) (JEW)
	3-243-699-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-243-699-21	MANUAL, INSTRUCTION (SPANISH)	(JEW)
	3-243-699-31	MANUAL, INSTRUCTION (PORTUGUE	SE) (JEW)
	3-243-699-41	MANUAL, INSTRUCTION	
		(TRADITIONAL	,
	3-243-699-51	MANUAL, INSTRUCTION (KOREAN) (JEW)







The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

<u>MEMO</u>

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002.06	New